HARVARD STUDIES IN EDUCATION

PUBLISHT UNDER THE DIRECTION OF THE GRADUATE SCHOOL OF EDUCATION

VOLUME IV

RELATIV FREQUENCY
OF
ENGLISH SPEECH SOUNDS

BY

GODFREY DEWEY, EdD

AUTHOR OF PERSONAL SHORTHAND, DEMOTIC SHORTHAND,
DEWEY SHORTHAND, ETC.

———————

The text of this investigation is speld in accord with the recommendations of the Simplified Spelling Board. In the material investigated the conventional spelling, as found, has been adhered to strictly thruout.

The fonetist and filologist has always been among the first to recognize the immense importance of the movement for reform of English spelling, which commands the united support of the leading language scolars both of England and America. He should be willing to bear his share of the prejudice which some must endure in the course of progress toward a rational orthografy.

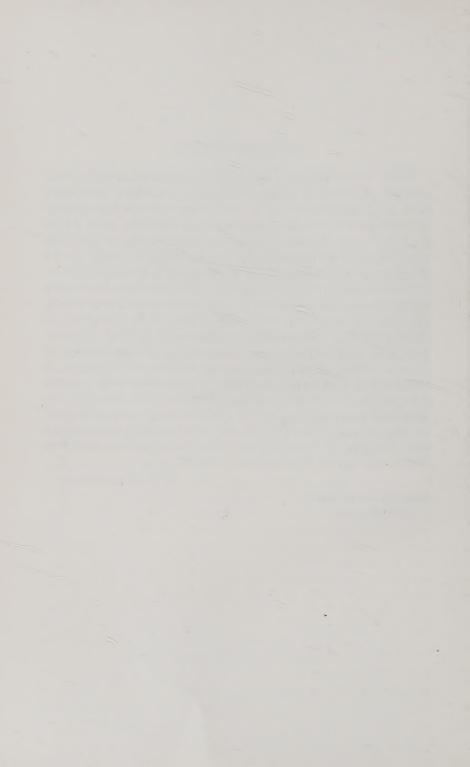*Simpler Spelling Association, Lake Placid Club, N.Y., wil send ful information concerning this important movement on request.*

INTRODUCTION

This investigation, based on a sufficient number and variety of modern texts, conducted on sound principles and with scrupulous care, aside from its obvious utility for shorthand and for instruction in reading, is of value to foneticians in that it affords abundant choice material for the study of the adjustment of sound to sound in the sillable. To the linguist it furnishes also a starting point for comparison of one language with another, in respect iether to acoustic effect or to the caracteristic operations of the vocal organs; and it provides, in its word list, a foundation for comparativ estimates of current vocabulary as an index of national civilization. To one interested in the history of speech, or the history of thought, it suggests and facilitates a series of comparisons of present and past aspects of English, whether one consider the language as an aggregate of sound-patterns or as a medium of expression. Multiple are the uses to which these tables may be put. It is to be hoped that many scolars, in many fields, will avail themselves of them.

C H GRANDGENT

HARVARD UNIVERSITY
January, 1923

v

PREFACE

Study of the fonetic facts of English has been heretofore almost wholly qualitativ. Recently, to be sure, there has been a growing series of word counts, purporting usually to determin the most frequently occurring words of the language, but the more searching and for many purposes more significant investigation of the relativ frequency of sillables and of sounds has been quite neglected.

The principal educational use of such word lists thus far has been in connection with that short-sighted misdirection of effort which treats the simptoms insted of the disease of our present indefensible conventional spelling. For this and other more profitable purposes, however, accurate lists of the commonest words of English hav great value, and the present lists ar believd to offer 2 markt advantages. 1: A much greater diversity in selection of material analized givs much wider validity to the results. 2: The accuracy and significance of the lists ar not impaird by an indefinit "judgment factor" in the combining of derivativs and inflected forms. For certain purposes complete separation of all variant forms may be most useful, for others sistematic grouping of the derivativs of each root form; but there is no valid excuse for the usual practise of an indeterminate "personal judgment" mixture of the 2. This study presents both treatments, separately, and separately indext.

All of the quantitativ data on sillables and most of the data on simple sounds ar, so far as I know, unique and of great potential importance in several different fields of study and teaching.

In the pedagogy of writing, tiping, or shorthand the word lists hav great value, whether in providing material from which to organize a textbook or course of study, or in placing the emfasis most effectivly in using material

predetermind by other conditions. Lacking such data much wasted effort results from confusion between merely familiar words and words of genuinly common occurrence. In devising, and stil more in testing or evaluating reading methods, the sillable and sound data also wil be most significant — likewise in the problems of speech correction. Further and varied uses wil redily suggest themselvs to the educator familiar with the resources of these tables.

All data here presented are of the most fundamental importance for constructing a sistem of shorthand for general use, which must be in harmony with the fonetic facts of English. These data hav been utilized to the fullest extent in devizing both the structure and presentation of *Personal Shorthand*,[1] a sientific development of accepted shorthand principles, and of *Demotic Shorthand*,[2] a revolutionary shorthand experiment which abandons 2 of the most firmly establisht fundamental principles of English language shorthand — single stroke signs for simple sounds, and small signs for vowels — and in so doing achievs a unique and unprecedented simplicity. The primary purpose, indeed, in securing these data was their indispensable importance as the first foundation of any scientific study of shorthand problems, but particular pains wer taken to avoid specializing the investigation to this end, for the increast value for shorthand purposes would hav been comparativly slight, while the more general value of the results for other fonetic, filologic, and educational purposes would hav been materially reduced.

For the research laboratory of the engineering or manufacturing corporation dealing with such acoustic devices as the telefone or fonograf, these analitic quantitativ data provide important material for study of the most efficient or effectiv transmission or reproduction of speech sounds.

---

[1],[2] Both superseded by the Dewey Shorthand series of textbooks, publisht by Dewey Shorthand Corporation, Lake Placid Club, N.Y.; distributed also by Pitman.

Finally, as Professor Grandgent has pointed out in his introduction, the establishment of reliable quantitativ data as to the simple sounds and commoner sound combinations of English throws a new and valuable light on the studies of the fonetist, and affords material for a new and profitable field of investigation into the tendencies of language development.

In addition to the varied uses of the dåta here reported, the fonetic print alfabet itself, adapted from the Revised Scientific Alfabet for this investigation, and adopted subsequently by the Simplified Spelling Board for indicating pronunciation in its various publications, offers certain practical advantages in connection with the problem of fonetic spelling reform: in particular combining the least practicable degree of tipografic strangeness with that minimum degree of fonetic precision necessary for general popular use.

The clerical work of the investigation, which required more than 3,000 hours, was performed chiefly by 4 different assistants, at 3 different places — New York, Lake Placid Club, and Cambridge — at intervals during the past 4 years. Under the circumstances minor errors in the recording or manipulation of data hav been inevitable. Where necessary or desirable for purposes of comparison, such errors hav been reconciled in preparing this report. No such adjustment has affected any significant figure as much as .1 of 1 %, and most hav affected such figures les than .01 of 1 %.

Particular acknowledgment is due my ablest assistant, Miss Frances Wilson, who performed much of the more difficult fonetic classification and tabulation of the original investigation, and subsequently assisted me with the final checking, revising, reconciling and copying of the greater part of the data here presented.

GODFREY DEWEY

CAMBRIDGE, MASS
January, 1923

PREFACE TO THE REVISED EDITION

In the 27 years since this study was first publisht, it has abundantly justified the closing lines of Professor Grandgent's introduction which appears on page v. Altho the modest first edition has been out of print for a dozen years, I hav had reports of its use for as varied purposes at as widely scatterd points as the teaching of English in Japan, the breaking of cipher codes in British India, developing an improved typewriter keyboard in Austria, the development of Zachrisson's Anglic [a form of world English spelling] in Sweden, and the development of Ogden's Basic English in Great Britain. All these ar in addition to the more obvious primary purposes of the study in connection with my own shorthand construction and the problems of simpler spelling and fonetics. It may be added that both Pitman in Great Britain and Gregg in the United States hav used this study, and quoted it as an authority, in the preparation or revision of shorthand textbooks.

My own constant use of these data over a series of years quickly reveald the considerable value of expanding Table 9 to show for each of the 1370 commonest sillables how often it occurd initially, medially, or finally in a word, or as a word by itself. This expansion has therefore been publisht in this revised edition as Appendix C. In addition, Appendix D givs two brief tables of *letter* frequencies ; which, while falling outside the declared scope of the study, giv a valuable check on the frequencies commonly assignd to the lower case letters in the printer's font, and provide an accurate and incontrovertible basis for estimating the saving to be effected by any proposed form of fonetic spelling for English.

So far as practicable, the errors discoverd in the first edition hav been corrected where they occur. Where the same error occurs in several places, or its correction would throw out column footings or cumulativ totals, it has been identified by an encircld number referring to an errata sheet at the end of the volume.

GODFREY DEWEY

LAKE PLACID CLUB, N.Y.
January, 1950

CONTENTS

Part 1　Preliminary Discussion

Part 2　Words

Part 3　Sillables

Part 4　Sounds

General Summary

Appendix

Part 1—Preliminary Discussion

.

Part 1

Preliminary Discussion

Purpose

The object of this study was to determin the relativ frequency of occurrence, in good English, as written and spoken today, of the various simple sounds and commoner sound combinations — sillables and words — of the English language.

Previous investigations

Previously publisht investigations hav delt almost wholly with relativ frequency of words, and too often hav been specialized, at least in their selection of material for analisis if not in their manipulation or presentation of data secured, for some particular purpose. The more important publisht word counts ar listed below, in cronologic order, with brief comment.

Knowles, Rev J, *The London point sistem of reading for the blind*, London, 1904.

This list is based on analisis of 100,000 words of "passages from the English Bible and from various authors"; and givs, in order of frequency, with frequency of each, the 353 commonest words (occurring 25 times or more).

Eldridge, R C, *Six thousand common English words, their comparativ frequency and what can be done with them*, Niagara Falls, N Y, 1911.

This list, the only word count publisht *complete*, so far as I can find, is an analisis of 34,989 words from 4 issues of 4 different Sunday newspapers publisht in Buffalo in July and August, 1909; and givs in order the frequency of every word, 6002 different words, of which the most frequent 750 constitute over 75% of the whole material analized.

Ayres, Leonard P, *The spelling vocabularies of personal and business letters*, Russell Sage Foundation, New York, 1913.

This tabulates 23,629 words from 2,000 short letters written by 2,000 people; finding 2,001 different words and reporting the frequency of the more common.

Cook, W A, & O'Shea, M V, *The child and his spelling*, Bobbs-Merrill, 1914.

This list is based on 200,000 words from the family correspondence of 13 adults. Several alfabetic lists, with frequencies, ar given, showing 186 words used by all 13 correspondents, 577 words used by a majority of the correspondents, etc; but no clear statement is made, or obtainable without complete retabulation, as to the most frequent words or their combined frequency. Only 5,200 different words ar found in the total 200,000.

Jones, W Franklin, *Concrete investigation of the material of English spelling,* University of South Dakota, 1914.

This list tabulates 4532 different words, occurring in about 15,000,000 words of specially written grade themes, according to the grade in which each was first used by at least 2% of the students, but givs no more direct information as to relativ frequency. The investigation lists also *100 spelling demons*, or the 100 words of English most often misspeld.

Ayres, Leonard P, *A mesuring scale for ability in spelling*, Russell Sage Foundation, New York, 1915.

This list, much the most widely quoted at the present time, is based on the material of the first 4 lists above cited, properly weighted and combined and reduced to a basis of occurences per 100,000 words. Ayres says: "The aggregate amount of written material analized in securing these results was approximately 368,000 words, written by some 2,500 different persons. More than $\frac{2}{3}$ of the material consisted of personal and business letters."

Ayres' list givs in order of frequency, with frequency of each per 100,000 words, the 1000 commonest words, which make up 91,899 per 100,000; the 100 commonest making up 59,591. Owing no dout to lack of any equally accurate and comprehensiv count based on more diversified material, Ayres draws altogether too sweeping conclusions as to the percentage importance in all or general matter of the commonest words which he reports.

16 spelling scales, Teachers College Record, v 21, nr 4, (Sept 1920).

This investigation lists in alfabetic order, with frequencies, the second and third thousand commonest words derived from the material used by Ayres, above noted. Ayres rightly points out that the 1000 commonest words represent about the farthest limit at which any statement as to the commonest words has general significance independent of the particular material investigated.

Thorndike, Edward L, *The teacher's word book*, Teachers College, Columbia University, 1921. Discust in article *Word knowledge in*

the elementary scool in Teachers College Record, vol 22, nr 4, (Sept, 1921).

"*The teacher's word book* is an alfabetical list of the 10,000 words which ar found to occur most widely in a count of . . . (about 4,565,000 words). 41 different sources were used.

"A mesure of the range and frequency of each word's occurrence is given by the credit-number following it." Elsewhere it is stated: "The reader is askt to accept arbitrarily these credits since an explanation of the method by which they were obtaind is too involved to be given here."

This latest publication becomes increasingly unsatisfactory the more closely it is examind. The heterogeneous selection of material is by no means representativ of anything in particular, such as the words most used by scool children or by adults, in reading or in writing; and as representativ of everything in general is scarcely more defensible. Furthermore, as Ayres * rightly and clearly pointed out in 1915, beyond the 500 or at most the 1000 commonest words, no statement of the inherently commonest words of English, independent of the particular material analized, is possible.

The complex credit-number scheme by which the quantitativ data ar reported is glaringly defectiv and misleading, with respect to the most common words at least. Compare Thorndike's rating and Ayres' per cent for the 6 commonest words of the present investigation, together making up over 20% of all words found:

Word	Dewey %	Ayres %	Thorndike rating
the.............................7.3		6.4	208
of............................. 4.0		3.4	205
and............................ 3.3		3.4	210
to............................. 2.9		3.2	208
a............................. 2.1		1.9	208
in............................. 2.1		1.9	211
(For the least frequent of the 1000			
commonest words............ .011		.012	49)

Space forbids further comment, but in other important particulars, including an exprest or implied confidence in the results not warranted by the basic conditions, this latest and most extended word count is open to serious criticism.

① There ar, in addition to the above, several unpublisht word counts, of which the erliest and best diversified is that made by Melvil Dewey, about 1900, as a basis for his notehand list of 100 abbreviations for the most common words. This counted 60,000 words, in twelv 5000 word selections from standard English literature, but

* *A mesuring scale for ability in spelling*, page 9.

unfortunately did not itemize the infrequent words counted, and so could not be used as a basis for analisis of sillables and sounds.

The enormous amount of time and effort expended on such studies as Cook & O'Shea, Jones, Ayres, etc, which investigate and attempt to provide objectiv mesurement of the difficulties of the conventional English spelling, must be included among the conspicuous wastes, in education, even more than in commerce and international relations, for which our present English spelling is responsible. In view of the consensus of all competent authority as to the anomalous and indefensible caracter of our present orthografy, such effort is fairly comparable to the establishment at a grade crossing of a modern emergency hospital, insted of regrading the crossing to eliminate the hazard.

The conspicuous defect of most of the foregoing word counts is insufficient diversity of material to assure a representativ caracter. It was for this reason principally that I considerd it necessary to make my own word count of 100,000 words of carefully diversified material, insted of basing my sound and sillable analises on word counts alredy available. The soundness of this decision is strikingly emfasized by comparing the final summary of the Cook & O'Shea count above noted, which finds only 5,200 different words in 200,000, with my own results which find 10,161 different words in 100,000.

A warning should be inserted here against attempting to compile data with respect to sillables or sounds on the basis of any list of commonest words only, however good. It is an interesting and significant fact that some of the commonest sillables of the language scarcely occur among the 500 or even 1000 commonest words, but owe their importance rather to occurrence in many different words each relativly infrequent. This is particularly true of prefixes, suffixes, and other combining forms of Latin or Greek origin, whereas in any short list of commonest words short and Anglo-Saxon words predominate. The result, as proved by ruf analises not here reported, is that analitic data based on commonest words *only* wil giv,

inevitably, a seriously distorted picture of the language as a whole.

With respect to sillables there exist no previous reliable data on even a small scale. Various fragmentary and unsupported statements occur in the literature of short-hand, but none giv evidence of any adequate or dependable basis, and many betray a naive ignorance of the very nature of a sillable; as in the case of one author, not yet extinct, who gravely treats as a sillable *any* combination of 2 *letters* — and bases his sistem on the treatment!

The literature of shorthand contains similar fragmentary statements with respect to sounds, which agree chiefly in recognizing the preponderance of the 3 consonants, n t r, which Isaac Pitman cald "the bones of the shorthand skeleton." The more frequent half of the consonants in these statements wil be found to agree fairly wel in selec-tion, tho not in arrangement, with each other and with the facts; but with respect to the vowels, which hav always constituted the weak point of English shorthand, owing largely to our intricate and disorderd spelling, such statements ar altogether unreliable.

There exists however one statement of the relativ frequency of the simple sounds of English wholly scolarly and, with certain limitations, reliable. This was pub-lisht in 1874 by William Dwight Whitney, in an essay entitled *The elements of English pronunciation.** It is based on analisis of 10,000 *sounds*, 1,000 each from 10 literary classics, 5 prose and 5 poetry, in accord with his own pronunciation. Professor Whitney was certainly entitled to take his own pronunciation as a standard, but unfortunately this procedure makes impossible any clear comparison with the present investigation, for the fonetic basis adopted differs just enuf to make definite correlation of his results with the present series impossible. For the consonants, which admit of much closer comparison, differences of 10 to 20 % ar the rule, with a few much greater or smaller discrepancies; indicating clearly that 10,000 sounds afford much too narrow a basis for definit general conclusions.

* Oriental and linguistic studies, p 202–276, Scribners, 1893.

In general it may be said that except for lists of the 100 or 1000 commonest words, which comparisons show to be based on too restricted selection of material, reliable data for this whole field hav been conspicuously lacking.

Material and methods

Study of previous investigations indicated that 100,000 words of material would, if sufficiently diversified, furnish data adequate for the purposes desired.   10,000 words would perhaps hav sufficed to furnish reliable data on the simple sounds, but for the sound combinations, particularly the sillable combinations, for which no reliable comparativ data were available, 100,000 words seemed necessary, and sufficient.

The first step therefore was to select 100,000 words of connected matter adequately representativ of good English as used — written, spoken, and printed — today. This definition should be kept in mind in examining the table of selections which follows; as it accounts for the omission of Shakspere, and the literary classics of the 17th, 18th, and early 19th centuries, which however widely red do not represent the *usage* of today.

TABLE I

MATERIAL ANALIZED

100,000 words of connected matter (excluding numerals and proper names), representativ of English as written and spoken today; no single source contributing more than 5,000 words.

	Words
15% newspaper editorial English	
New York Tribune..............................	5,000
Boston Evening Transcript......................	5,000
Los Angeles Daily Times........................	5,000
15% newspaper news English	
Chicago Daily Tribune..........................	5,000
Kansas City Star...............................	5,000
Atlanta Constitution...........................	5,000
15% modern fiction	
5% novel	
Winston Churchill (The Crisis)..................	2,500
William Allen White (A Certain Rich Man)........	2,500

5% short story
    Rudyard Kipling (The Day's Work)................ 2,500
    Mark Twain (The American Claimant, etc)......... 2,500
5% drama
    William Dean Howells (The Mouse-trap, etc)........ 2,500
    Clyde Fitch (The Stubbornness of Geraldine)........ 2,500

10% modern American speeches
    Abraham Lincoln................................... 5,000
    Theodore Roosevelt............................... 2,500
    Woodrow Wilson.................................. 2,500

5% personal correspondence
    Richard Harding Davis............................ 2,500
    Robert Louis Stevenson........................... 2,500

5% business correspondence
    5 manuals of tipewriting, business English, and short-
    hand — 1,000 words each........................ 5,000

5% modern advertizing
    19 advertizements representing leading advertizers,
    mediums, and agencies........................... 5,000

5% religious English
    Holy Bible (St Mark 1:1—)........................ 1,000
    Henry Ward Beecher (Sermons).................... 1,000
    Phillips Brooks (Sermons)......................... 1,000
    Christian Herald (editorial)....................... 1,000
    Catholic News (editorial)......................... 1,000

5% (popular) scientific English
    Scientific American............................... 3,000
    Science.. 1,000
    Popular Mechanics............................... 1,000

5% modern 'special articles'
    Literary Digest................................... 1,000
    American Magazine (2)............................ 2,000
    Outlook.. 1,000
    Independent...................................... 1,000

5% magazine editorial English
    Independent...................................... 1,000
    Atlantic Monthly................................. 1,000
    New Republic.................................... 1,000
    Pictorial Review................................. 1,000
    American Magazine............................... 1,000

5% Saturday Evening Post
    100 words top second reading matter column, 50 con-
    secutive pages................................... 5,000

5% Literary Digest
    Similar mecanical sampling........................ 5,000

        Total number of words analized................100,000

The stages of the investigation may be subdivided into: 1) Counting, recording, arranging, and listing the 100,000 words, 2) Transcribing the different words recorded in a fonetic notation based on the Revised Scientific Alfabet, 3) Analizing this fonetic transcription with respect to sillables, reducing the data thus secured from the medium precision (48 sound) basis of the Revised Scientific Alfabet to the minimum precision (41 sound) basis of the fonetic print alfabet adopted; arranging, charting, and summarizing the results in various ways, 4) Similar analisis, arrangement, and charting with respect to separate single sounds.

The word counting stage was expedited and checkt as far as possible by mecanical and other aids, including specially printed record cards, Veeder counters, Rand card holders, Smith steel signals, and a special card ledger desk.   This stage, with the fonetic transcription on the original cards which accompanied it, required in all about 1200 hours.   The methods used resulted in an error of not more than 3 words in any 5,000 word selection, and of only 3 words for the final total of 100,000.

In this basic count every variant of a single root was treated as a separate word; e g *large, larger, largest, largely* were treated as 4 separate words.   This was of course essential to the analisis of sillables and sounds to follow. The 10,119 different word cards secured on this basis were arranged in order of frequency, and the 1,027 commonest which occurd more than 10 times each, listed, forming Table 3, the list of *Particular words* by frequency, which totals 78,633.   These 1,027 cards were also arranged in alfabetic order and listed, forming Table 5, the index list of *Particular words*.

While this separate consideration of all variant forms was essential for the analisis to follow, the relativ frequency of the more common words grouping together all common variants of one root, is equally interesting and for some purposes more significant.   The entire body of cards for particular words was therefore rearranged group-

ing † variants together ; * single analitic cards substituted for all groups totaling over 10 occurrences, and all cards now over 10 arranged and listed in order of frequency and in alfabetic order, forming the *Root words* lists, Tables 4 and 6, which parallel the *Particular words* lists above noted. In the *Root words* lists number in colum at left shows combined frequency, while number following / at right shows number of different forms which make up the total; omission of this / and number indicating that the word occurd only in the form appearing in the list.

For the second stage it was necessary to hav: a) a definit authority for pronunciation; b) an explicit and unmistakable fonetic notation; and c) particuiarly for the third and fourth stages to follow, a definit linear order for the fonetic alfabet.

The Standard Dictionary (Funk & Wagnalls, New York) was chosen as the only possible authority for such an investigation by reason of its use of the Revised Scientific Alfabet (popularly known as the N E A key alfabet) for indicating pronunciation. The uncouth and obsolete "Webster" notation, quite similar in the ocher American dictionaries, misleading and objectionable for any fonetic purpose, is quite impossible as a basis for such an investigation, for on the one hand its complex and cumbersome diacritic notation represents the avowedly same sound in several different ways, while on the other it indicates certain differences of sound not merely subtle but according to the most competent authority non-existent. Murray's New Oxford Dictionary, using ‡ the International Fonetic Association alfabet, was not completed, and would in any case hav conformd les closely to American usage.

* 20 of the commonest suffix variants so groupt were

–s	–(a)tion(s)	–ive	–al
–ed	–ment(s)	(e)th	–ance
–ing(s)	–est	ful	–y
–er(s)	–(e)n	less	–ity
–ly	–ant	–ness	–able

Combinations such as *drive*, *driven*, in which a markt change in the sound of the root takes place, were *not* made.

† suffix.   ‡ substantially.

The principal defect of the Revised Scientific Alfabet, for the particular purposes of this analisis, was its use of 4 complex digraf ligatures for the 4 consonant sounds of *th*in *th*en *sh*ip *ch*ap, and its writing of the vowel difthongs by their component elements, interfering seriously with the mecanical ease and certainty of identifying and distributing sillables by their single explicit vowel element. These difficulties ar fully overcome in the fonetic alfabet adopted for this investigation, which is set forth in detail in Appendix A.   This alfabet is based on careful study of all important previous attempts at a fonetic notation for English, and extended correspondence and conference with the ablest fonetists of the United States, including particularly Professor Raymond Weeks of Columbia and Professor Charles H Grandgent of Harvard, both of whom wer of great assistance in determining this notation and the question of linear order following.   In view of its subsequent adoption by the Simplified Spelling Board, for indicating pronunciation in its various publications, it may be designated as the S S B key alfabet.

No definit linear order for a fonetic notation has been establisht by competent authority.   The nearest approach to an accepted order is found in the usual presentations of the alfabet of Pitmanic shorthand, which proceed in general: from consonant to vowel to difthong;   from explodant to continuant consonant groups, and from palatal to labial vowel groups;   from front to back in point of articulation of consonants, from back to front in vowels;   from surd to sonant in consonant pairs, from short to long (sometimes from long to short) in vowel pairs;   with the 4 vowel difthongs usually distinguisht paird by their latter elements.   These tendencies, useful for shorthand presentation, were carefully considei ed in establishing the definit order shown in Appendix A.   This appendix wil repay careful study in interpreting the results hereafter presented.

The fonetic transcription from Key 1 of the Standard Dictionary to the word cards did not make the reduction from 48 to 41 sounds referd to in Appendix A.   The 7 additional sounds interpolate redily in the linear order,

as wil appear in Table 15 (page 125) which givs the frequency of the 48 sounds in fonetic order.

The preferd or first of alternativ pronunciations was used uniformly.

The third stage, analisis by sillables, which required, including final tabulation of results, about 1080 hours, was based on the *Particular word* cards secured by stages 1 and 2; each card now containing among other data the total frequency, conventional spelling, and fonetic transcription of one word. Specially printed analisis cards, on which entries were made with a set of 100 rubber stamps numbered from 0 to 99, were used. The analisis was arranged to determin for each sillable not only its total frequency of occurrence but also how often it occurd initially, medially, or finally, or alone in words.

Immediately on completion of the sillable analisis abov described the sillable cards were combined on a 41 sound basis, eliminating the 7 finest distinctions (see Appendix A) of the 48 sound dictionary key. This step gave about 4,400 different sillable cards, showing a total of about 143,000 sillables for the 100,000 words. The 1370 most frequent of these sillables forming 133,586 sillable occurrences, or over 93% of the total, form the basis of the sillable data hereafter reported.

The procedure of the fourth stage, analisis by sounds, which required in all about 720 hours, was similar to that above described for the sillable analisis. Two complete independent analises by sounds were made, the first distinguishing the ocurrence of sounds initially, medially, or finally, or alone in *sillables;* the second distinguishing their occurrence similarly in *words*. The total results of these 2 analises gave an important and necessary check, the only check possible, on this stage of the investigation; while the separate data of both analises ar profoundly important as a gide to shorthand construction.

The total results of the sound analisis ar reported on a 48 sound, a 41 sound, and a 40 sound basis, as wil be described in the section on sounds. The results of the 2 more detaild analises, showing position of sounds in sillables or words, are reported on a 41 sound basis only.

Incidental data on the ocurrence of proper names, numerals, abbreviations, punctuation, etc, ar summarized briefly in Table 2 following.

TABLE 2.   INCIDENTAL DATA

(not included in count of 100,000 words analized)

Proper names		6,404
Numerals		2,102
Titles & salutations		
Mr	148	
Mrs	44	
General	44	
Sir	33	
Secretary	28	
Miss	25	
Judge	18	
Dr	14	
Gentlemen	13	
Colonel	12	
Other miscellaneous	203	
		582
Abbreviations (not including titles)		
Co	16	
No	13	
Other miscellaneous	81	
		110
Foren words (chiefly French & Latin)		42
Punctuation		
,	5,951	
.	5,275	
"	2,416	
" " (1,108 x 2)	2,216	
'	835	
—	540	
;	442	
?	330	
!	304	
( ) (122 x 2)	244	
:	218	
$	76	
&	23	
/	16	
%	13	
Other miscellaneous	13	
		18,912
Number of sentences		5,446

Average length of sentence, including proper names but excluding numerals, etc: 106,404 ÷ 5,446 = 19.6 words (about)

Part 2—Words

Part 2

Words

Relativ frequency of the commoner words of English

Tables 3 and 4 following show, in parallel colums, the frequency of every word ocurring oftener than 10 times in 100,000 words: the left colum, *Particular words*, considering each variant form as a separate word; the right colum, *Root words*, grouping together all ordinary variants of one root.* The figures following the bar at the extreme right show the number of variant forms so groupt in each case.

Summarizing Table 3, *Particular words:*

9 words form over	25 %	of the whole 100,000
69	"	50 %	"
732	"	75 %	"

or

10 words make up	26,677	of the whole 100,000
100	"	54,303	"
1,000	"	78,336	"

and

1,027 words occur over 10 times, totaling 78,633 words.

In the *Root words* table:

1,131 words occur over 10 times, totaling 87,358 words.

For the 1,000 commonest words, the *Root words* table exceeds the *Particular words* table by les than 10 %, a difference which decreases progressively for any lesser number of words.

These figures I consider amply to justify the general conclusions that, of any specimen of connected English sufficiently long to be fairly representativ:

The	10 *commonest words here reported wil form over*	25%
②	100	"	"	50%
	1,000	"	"	75%

* See page 10-11.

17

The first conclusion wil undoubtedly hold for specimens as short as 1,000 words, the second should hold for 10,000 words or more, the third may or may not hold strictly for reasonably diversified material of 100,000 words or more.   Beyond this point no *general* statement as to the most common words can be developt, even by counting 1,000,000 words or more,* for the nature of the words encounterd is no longer common to all grammatical discourse but varies more and more widely according to the subject matter of the material counted.

The figures here reported clearly indicate the too sweeping nature of previous conclusions as to the frequency or importance of the 1,000 commonest words — conclusions based on counts of not sufficiently diversified material.

Tables 3 and 4 of words in order of frequency ar immediately followd by Tables 5 and 6 of the same words in alfabetic order, also in parallel colums and showing frequencies.

* See statement by Ayres, referd to on page 5.

TABLE 3	TABLE 4	TABLE 3	TABLE 4
7,310 the	7,310 the	237 when	262 them /2
3,998 of	3,998 of	234 him	260 what /2
3,280 and	3,280 and	228 them	257 me
2,924 to	2,924 to	222 her	248 who
2,120 a	2,120 a	214 war	239 do /2
2,116 in	2,116 in	214 your	237 when
1,345 that	1,488 it /4	210 any	234 her /3
1,216 it	1,367 that /3	210 more	232 time /2
1,213 is	1,236 I /5	210 now	217 war /2
1,155 I	1,224 is /2	208 its	210 any
1,035 for	1,035 for	205 time	210 more
846 be	956 be /3	204 up	210 now
839 was	850 was /2	203 do	207 up /3
782 as	808 you /5	203 out	206 out /3
775 you	782 as	197 can	194 other /2
727 with	727 with	194 than	194 she /3
680 he	687 he /3	189 only	194 than
643 on	658 have /3	188 she	191 say /4
617 have	643 on	170 made	189 only
600 by	600 by	169 other	180 people /3
589 not	589 not	166 into	178 great /5
585 at	585 at	164 men	175 day /4
572 this	572 this	163 must	171 come /4
542 are	549 are /2	163 people	171 know /4
529 we	537 we /3	161 said	170 made
517 his	517 his	160 may	168 men /2
504 but	504 but	156 man	168 must /2
478 they	495 they /4	153 about	167 man /5
466 all	467 all /2	153 over	166 into
458 or	464 will /6	152 some	166 make /6
454 which	458 or	152 these	164 take /4
445 will	454 which	146 two	162 may /2
433 from	433 from	145 very	161 said
411 had	414 had /2	139 before	153 about
390 has	390 has	134 great	153 over
368 one	389 one /3	133 could	152 some
331 our	357 our /3	132 such	152 these
330 an	330 an	131 first	152 year /2
(3) 328 been	329 been	129 upon	147 could /2
321 no	329 my /2	124 every	146 how /2
315 their	329 there /3	124 how	146 two
306 there	321 no	123 come	145 very
305 were	319 their /2	123 us	144 go /3
300 so	307 were /2	120 shall	142 see /3
296 my	300 so	118 should	139 before
263 if	285 him /2	115 then	132 such
257 me	283 your /4	113 like	131 first
253 what	277 can /4	113 well	129 like /7
252 would	267 would /2	111 little	129 upon
248 who	263 if	111 say	127 give /4
46,067 [50]	46,922 /101	54,303 [100]	55,899 /214

TABLE 3	TABLE 4	TABLE 3	TABLE 4
108 because	127 work /7	69 also	81 hand /4
108 being ✓	126 thing /2	68 public	81 high /4
108 under	125 good /3	④ 68 today	79 line /2
107 after ✓	124 every	68 yet	79 while /2
107 here	123 did /2	67 don't	78 govern /9
106 good	123 us	67 same	76 matter /2
105 make	120 shall	67 thought	75 am
105 most	119 should /2	67 thought	75 ask /4
104 many	119 way /2	63 each	75 seem /3
104 much	117 after /3	63 far	75 thought /3
104 those	117 get /3	63 home	75 three
104 way	117 world /4	63 put	73 against
103 see	115 then	62 again	72 gun /3
103 world	113 well	62 always	72 mean /4
102 know	112 little /2	61 nothing	72 possible /4
101 day	111 country /5	61 present *a & n*	72 real /4
101 never	110 here /2	60 between	72 show /5
100 did	110 just /4	60 going	71 came
99 new	110 long /7	60 money	71 case /2
95 down	110 right /6	60 per	71 home /3
94 even	109 under /2	59 once	71 order /4
94 long	108 because	59 peace	71 tell /3
93 years	107 most /2	59 woman	70 act /8
92 country	104 many	59 year	70 without
91 business	104 much	58 another	69 also
91 right	104 new /4	58 away	69 cent /2
89 get	104 those	58 cannot	69 look /4
89 life	101 never	58 fact	69 need /6
86 just	100 use /6	58 half	69 public /2
④ 86 take	99 think /3	58 still	68 name /5
83 where	98 down /3	57 give	68 power /3
83 work	97 part /3	57 government	68 present /3a &
82 things	94 even	57 power	68 yet
79 part	94 through /2	57 too	67 don't
78 through	92 state /6	56 yours	67 pay /6
78 while	91 business	55 found	67 put /3
77 last	90 life /2	54 few	67 same
77 might	90 own /6	54 possible	67 ship /7
75 am	88 today /2	53 does	66 house /3
75 back	85 call /6	53 food	64 far /2
75 old	85 fact /4	53 house	64 save /3
75 own	85 last /4	53 less	63 does /2
75 three	85 place /4	53 oh	63 each
73 against	84 large /4	52 best	63 loss /3
73 go	84 might /5	52 case	62 again
73 think	84 old /4	52 line	62 always
71 came	83 back /5	52 place	62 fight /3
71 matter	83 want /4	52 says	62 month /4
70 days	83 where	52 since	62 peace /3
70 without	82 interest /4	51 ever	61 nothing
58,795 [*150*]	61,055 /367	51 himself	
		61,717 [*200*]	64,538 /517

Table 3	Table 4	Table 3	Table 4
51 let	61 stand /3	40 done	51 city /4
51 military	60 between	40 fighting	51 condition /2
51 tell	60 money	40 name	51 ever
51 why	60 per	40 situation	51 feel /3
50 big	60 true /2	40 something	51 let
50 got	59 believe /5	40 took	51 military
50 until	59 dear /5	39 cent	51 why
50 went	59 nation /3	39 labor	50 certain /3
49 find	59 once	39 large	50 end /5
49 five	59 report /6	39 mind	50 girl /2
48 dear	59 woman	39 water	50 got
48 interest	58 another	38 battle	50 hope /8
48 left	58 away	38 conditions	50 pass /4
48 order	58 follow /4	38 it's	50 side /2
48 service	58 half	38 statement	50 until
48 set	58 live /4	38 though	50 went
48 steel	58 purpose /2	37 almost	49 continue /11
47 women	58 still	37 course	49 five
46 among	57 army /3	37 general	49 force /6
46 front	57 cause /4	37 nation	49 front /3
46 given	57 find /3	37 several	49 night /2
46 hand	57 kind /4	37 six	49 open /6
46 high	57 law /6	36 ago	49 pound /3
46 means	57 too	36 asked	49 water /3
46 night	56 few /2	36 doing	48 care /9
46 small	56 found /2	36 either	48 commit /6
46 taken	56 less /4	36 gave	48 left
45 both	56 letter /2	36 letter	48 permit /5
45 morning	56 train /5	36 seen	48 person /6
45 used	55 carry /4	36 state	48 plan /4
45 whole	55 food /2	36 use v	48 point /3
44 city	55 general /4	35 amount	48 reason /6
44 enough	55 hour /4	35 children	48 soon /2
44 gun	54 big /3	35 four	48 steel
44 next	54 eye /3	35 full	48 women /2
44 thing	54 form /8	35 necessary	47 full /3
44 want	54 service /3	34 books	46 among
43 army	54 set /3	34 certain	46 build /7
43 off	54 small /3	34 early	46 differ /7
43 pay	54 turn /4	34 law	46 morning/2
43 side	53 number /4	34 themselves	46 read /5
43 stand	53 oh	33 brought	46 require /5
42 purpose	53 six /5	33 capital	45 book /:
42 soon	52 best	33 coal	45 both
42 whose	52 consider /8	33 end	45 fail /6
41 during	52 labor /6	33 eyes	45 free /3
41 saw	52 love /7	33 forty	45 keep /5
41 young	52 near /4	33 known	45 price /4
40 believe	52 since	33 myself	45 supply /4
40 call	52 whole /2	33 really	44 enough
64,004 [252]	67,342 /676	65,817 [300]	69,751 /852

Table 3	Table 4	Table 3	Table 4
33 save	44 meet /4	29 further	38 course /2
33 told	44 mind /3	29 future	38 demand /4
33 yesterday	44 move /6	29 held	38 exist /6
32 better	44 next	29 idea	38 head /7
32 called	44 question /4	29 miles	38 necessary /3
32 cause	44 result /4	29 past	38 office /2
32 feel	43 battle /3	29 view	38 politic /6
32 free	43 boy /4	28 action	38 though
32 girl	43 off	28 along	38 value /5
32 hands	43 operate /9	28 boys	38 wish /4
32 keep	42 charge /4	28 complete	38 word /3
32 love	42 direct /8	28 lost	37 almost
32 making	42 enemy /3	28 nor	37 amount /3
32 months	42 idea /2	28 result	37 cost /4
32 need	42 mile /3	28 send	37 drive /4
32 number	42 million /4	28 sent	37 forty /3
32 point	42 whose	28 use n	37 official /3
32 rather	41 begin /4	28 whom	37 reach /4
32 subject	41 capital /6	28 wish	37 remember /4
32 wheat	41 during	27 already	37 several
32 wrong	41 early /3	27 beginning	37 view /4
31 afternoon	41 face /3	27 buy	36 ago
31 enemy	41 four /3	27 head	36 buy /5
31 having	41 saw	27 lines	36 either
31 kind	41 situation /2	27 moment	36 express /6
31 open	41 soldier /5	27 office	36 farm /6
31 real	41 young	27 often	36 gave
31 show	40 done	27 party	36 help /5
31 whether	40 ease /5	27 quite	36 inform /4
30 able	40 increase /4	27 saying	36 land /4
30 anything (5)	40 respect /8	27 soldiers	36 organize /4
30 ask	40 something	27 thousand	36 party /3
30 become	40 subject /4	27 times	36 receive /4
30 cents	40 thousand /2	26 hour	36 trouble /5
30 dinner	40 took	26 hours	36 wheat /2
30 face	40 week /2	26 impossible	35 car /2
30 feet	40 write /5	26 itself	35 enforce /4
30 hope	39 become /3	26 makes	35 perfect /4
30 I'm	39 change /4	26 perhaps	35 regard /5
30 knew	39 child /4	26 pounds	35 special /5
30 knows	39 complete /5	26 seemed	34 destroy /7
30 look	39 friend /4	26 special	34 issue /4
30 price	39 hold /5	26 troops	34 late /4
30 seems	39 industry /4	26 value	34 loan /2
30 true	39 object /10	25 above	34 note /5
30 truly	39 wrong /2	25 building	34 officer /3
30 turned	38 announce /6	25 different	34 recent /2
30 twenty	38 attack /4	25 flour	34 speak /5
29 committee	38 children /2	25 hear	34 success /5
29 common	38 clear /7	25 help	33 afternoon /3
67,368 [350]	71,794 /1,038	68,721 [400]	73,600 /1,223

TABLE 3	TABLE 4	TABLE 3	TABLE 4
25 land	33 base /6	23 reason	30 knew
25 loan	33 brought	23 received	30 learn /3
25 others	33 coal	23 school	30 machine/3
25 sea	33 heavy /5	23 yes	30 mere /2
25 together	33 import /3	22 around	30 minute /3
25 week	33 moment /4	22 court	30 offense /3
24 administration	33 please /3	22 department	30 picture /3
24 behind	33 return /4	22 dollars	30 provide /4
24 built	33 school /4	22 family	30 understand /3
24 child	33 send /2	22 hold	29 body /4
24 drive	33 serve /6	22 however	29 cut /4
24 electric	33 simple /4	22 kept	29 deal /6
24 important	33 sure /3	22 living	29 effort /2
24 indeed	33 talk /4	22 million	29 entire /2
24 information	33 told	22 offensive	29 expect /6
24 knowledge	33 yesterday	22 official	29 figure /3
24 month	32 administer /6	22 plan	29 further
24 note	32 appear /5	22 pound	29 future
24 opinion	32 better	22 remember	29 grow /5
24 read, *present*	32 control /5	22 reports	29 happy /5
24 second	32 desire /6	22 taking	29 held
24 ten	32 fire /4	22 tea	29 horse /2
24 thirty	32 play /5	22 third	29 particular /3
24 wanted	32 propose /5	22 worth	29 past
23 air	32 rather	21 alone	29 product /4
23 began	31 bombard/5	21 can't	29 self /4
23 care	31 bring /3	21 carried	29 sit /4
23 carry	31 common/3	21 change	29 trust /5
23 charge	31 effect /5	21 cost	28 account /5
23 clear	31 ground /2	21 effort	28 along
23 comes	31 happen /5	21 evening	28 answer /4
23 coming	31 hard /7	21 fight	28 electric /2
23 company	31 hear /3	21 following	28 lead /5
23 didn't	31 road /2	21 glad	28 mother /3
23 eight	31 run /4	21 hard	28 nor
23 except	31 sea /2	21 heavy	28 opinion /2
23 force	31 secure /6	21 hundred	28 represent /7
23 ground	31 street /2	21 list	28 safe /4
23 guns	31 thank /4	21 national	28 sent
23 heard	31 twenty /2	21 needs	28 strange /5
23 looking	31 whether	21 o'clock	28 use *n*
23 mean	30 able	21 perfect	28 whom
23 modern	30 anything	21 products	27 already
23 near	30 attend /6	21 proper	27 authority /2
23 officers	30 company/3	21 road	27 bear /5
23 political	30 dinner	21 room	27 defend /7
23 poor	30 dollar /3	21 street	27 execute /8
23 position	30 employ /7	21 sure	27 final /3
23 pretty	30 feet	21 thank	27 leave /4
23 question	30 field /2	21 that's	27 often

69,901	[450]	75,182 /1,394	70,979	[500]	76,611 /1,555

TABLE 3	TABLE 4	TABLE 3	TABLE 4
21 trouble	27 patriot /6	19 report	25 system /7
21 truth	27 plain /3	19 seem	25 thirty /2
21 unless	27 pretty /4	19 sense	25 together
21 write	27 quite	19 similar	25 try /2
20 account	27 rate /3	19 stooped	25 watch /3
20 continue	27 wonder /5	19 strength	24 accord /4
20 field	27 worth /3	19 success	24 address /4
20 gone	26 chair /5	19 supply	24 age /3
20 I'll	26 command /9	19 system	24 ally /3
20 I've	26 deliver /5	19 thinking	24 awful /2
20 justice	26 department /3	19 till	24 beauty /3
20 letters	26 discover /6	19 toward	24 behind
20 live *v*	26 eat /5	19 train	24 built
20 loss	26 establish /5	19 understand	24 collect /10
20 meeting	26 family /3	19 word	24 contract /3
20 met	26 father /3	18 although	24 duty /2
20 method	26 flour /2	18 answer	24 fall /4
20 mother	26 heart /7	18 artillery	24 history /5
20 nature	26 human /4	18 attack	24 hundred /2
20 ourselves	26 immediate /2	18 body	24 indeed
20 pass	26 impossible	18 bonds	24 manufacture /6
20 range	26 method /2	18 cars	24 meat /3
20 regard	26 pack /7	18 cut	24 member /2
20 ships	26 perhaps	18 doubt	24 poor /2
20 sort	26 seven /5	18 duty	24 press /4
20 story	26 strike /3	18 eye	24 room /3
20 talk	26 transport /3	18 fifty	24 second
20 victory	26 troops	18 foreign	24 store /4
20 within	25 above	18 form	24 support /5
19 age	25 agree /7	18 fresh	24 ten
19 attention	25 air /3	18 girls	24 touch /5
19 beyond	25 apply /6	18 heart	24 toward /2
19 bombardment	25 arrive /4	18 history	24 wait /3
19 bring	25 bond /3	18 largest	23 add /4
19 cases	25 concern /4	18 leave	23 admit /5
19 check	25 correspond /5	18 light	23 art /5
19 easy	25 else /3	18 machine	23 bad /2
19 happy	25 evening /3	18 merely	23 began
19 human	25 experience /3	18 news	23 check /3
19 interesting	25 favor /6	18 numbers	23 claim /3
19 least	25 judge /5	18 places	23 court /2
19 material	25 knowledge /2	18 play	23 draw /5
19 meet	25 low /5	18 probably	23 eight
19 memory	25 mine /5	18 problem	23 except
19 milk	25 practical /2	18 rate	23 fear /4
19 oil	25 prepare /4	18 recent	23 heard
19 particular	25 realize /4	18 required	23 limit /4
19 permitted	25 remain /5	18 rest	23 main /2
19 plans	25 sense /5	18 run	23 marry /4
19 ready	25 sort /3	18 ship	23 modern
71,962 [550]	77,896 /1,750	72,877 [600]	79,084 /1,902

Table 3	Table 4	Table 3	Table 4
18 simple	23 motor /6	16 avenue	21 difficult /3
18 support	23 paper /2	16 awfully	21 doubt /3
18 town	23 position	16 contract	21 enter /4
18 words	23 problem /2	16 county	21 equip /3
17 according	23 produce /6	16 delay	21 gain /4
17 announced	23 profit /5	16 demand	21 glad
17 authority	23 purchase /6	16 else	21 include /4
17 car	23 shell /3	16 feeling	21 lack /4
17 character	23 suggest /6	16 generally	21 natural /4
17 cold	23 yes	16 getting	21 nature /2
17 community	22 around	16 greater	21 o'clock
17 control	22 bank /5	16 honor	21 prevent /5
17 effect	22 decide /4	16 issue	21 probable /3
17 enforced	22 equal /3	16 laws	21 progress /3
17 everything	22 fine /4	16 low	21 proper
17 experience	22 fish /7	16 main	21 railroad /3
17 father	22 hero /4	16 members	21 rule /5
17 figures	22 honor /3	16 millions	21 slave /3
17 fine	22 imagine /5	16 minutes	21 spirit /3
17 forward	22 kept	16 nations	21 task /2
17 friend	22 list /2	16 opportunity	21 unless
17 friends	22 national /2	16 ought	21 west /3
17 goods	22 possess /8	16 paid	20 accept /6
17 higher	22 reduce /3	16 picture	20 active /3
17 horses	22 responsible /3	16 plain	20 affair /2
17 instead	22 seize /5	16 pleased	20 arm /4
17 meat	22 sell /4	16 pleasure	20 arrange /5
17 none	22 start /3	16 property	20 capture /3
17 object	22 step /3	16 proposed	20 character /3
17 parts	22 story /2	16 purposes	20 construct /4
17 passed	22 straight /5	16 questions	20 county /2
17 permit	22 strong /4	16 reasons	20 determine /4
17 president	22 suppose /2	16 recently	20 faith /4
17 reach	22 tea	16 sight	20 fellow /3
17 return	22 term /2	16 social	20 fill /4
17 saved	22 third	16 south	20 gentle /5
17 self	22 ton /3	16 stood	20 gone
17 speak	22 truth /2	16 summer	20 maintain /4
17 strange	22 victor /3	16 task	20 mark /4
17 suppose	21 addition /3	16 therefore	20 memory /2
17 terms	21 advance /5	16 tons	20 met
17 thus	21 alone	16 unto	20 milk /2
④ 17 to-day	21 bill /2	16 whatever	20 oil /2
17 total	21 chief /3	16 white	20 principle /2
17 training	21 citizen /2	16 you're	20 range
17 trust	21 contain /4	15 act	20 seek /3
17 turn	21 danger /4	15 address	20 serious /3
17 win	21 declare /4	15 allies	20 stoop /2
17 won't	21 delay /3	15 announcement	20 strength /2
16 affairs	21 develop /4	15 attitude	20 suit /4
73,730 [650]	80,183 /2,070	74,525 [700]	81,205 /2,220

TABLE 3		TABLE 4	
15	available	20	tax /4
15	bad	20	throw /4
15	bill	20	town /2
15	board	20	win /3
15	consider	20	within
15	due	19	artillery /2
15	efficiency	19	beyond
15	entirely	19	camp /3
15	existence	19	cheap /4
15	failure	19	class /3
15	fellow	19	close /3 *adj*
15	felt	19	deep /5
15	final	19	foreign /2
15	fire	19	fund /3
15	greatly	19	handle /5
15	increased	19	least
15	industrial	19	liberty /2
15	industry	19	material
15	larger	19	mill /2
15	learned	19	miss /4
15	losses	19	neighbor /4
15	miss	19	paint /6
15	nearly	19	president /2
15	necessity	19	provision /2
15	personal	19	ready
15	please	19	refer /6
15	practical	19	senate /4
15	progress *n*	19	short /4
15	respectfully	19	sight /3
15	safe	19	similar
15	shells	19	study /4
15	sold	19	teach /5
15	transportation	19	till
15	vessels	19	total /2
15	ways	19	trade /5
15	weeks	19	usual /2
15	west	18	although
15	won	18	aid /3
15	wouldn't	18	board /3
14	across	18	break /2
14	advantage	18	cold /2
14	art	18	community /2
14	average	18	count /5
14	basis	18	critic /7
14	beautiful	18	economy /7
14	certainly	18	explain /4
14	chief	18	fair /4
14	citizens	18	fifty
14	class	18	fly /4
14	command	18	forward /2
75,264 [750]		**82,146** /2,374	

TABLE 3		TABLE 4	
14	couldn't	18	fresh
14	danger	18	instruct /5
14	date	(5) 18	light
14	defender	18	news
14	defense	18	nine /5
14	distance	18	offer /5
14	easily	18	opportunity /2
14	entire	18	pure /4
14	equipment	18	quick /5
14	established	18	remark /5
14	everywhere	18	rest
14	fell	18	sacrifice /3
14	followed	18	settle /5
14	immediate	18	shape /4
14	moved	18	social /3
14	names	18	standard /3
14	ones	18	station /3
14	operation	18	type /2
14	patriotism	18	vessel /2
14	period	18	voice /3
14	person	17	attempt /4
14	read *past*	17	avail /3
14	region	17	avenue /2
14	round	17	bore /4
14	sat	17	conduct /5
14	saving	17	confer /3
14	sit	17	constitute /6
14	sometimes	17	cross /4
14	spirit	17	crowd /4
14	standard	17	date /2
14	step	17	defense /3
14	strike	17	detail /3
14	strong	17	drink /4
14	study	17	everything
14	supplies	17	expense /3
14	throughout	17	expert /2
14	try	17	factory /2
14	various	17	instance /2
14	wait	17	instead
14	wonder	17	invest /4
14	written	17	market /4
13	aid	17	measure /4
13	altogether	17	none
13	armies	17	observe /7
13	arrived	17	pleasure /2
13	black	17	raise /5
13	boy	17	relate /7
13	break	17	ring /3
13	broken	17	section /3
13	chair	17	south /2
75,955 [800]		**83,016** /2,537	

Table 3	Table 4	Table 3	Table 4
13 close *adj*	17 table /3	13 wise	15 efficiency
13 condition	17 test /4	13 working	15 felt
13 considered	17 thus	12 addition	15 firm
13 desire	17 vary /3	12 advance	15 gather /5
13 drawn	17 weigh /5	12 apparently	15 gold /2
13 facts	17 window /2	12 attacks	15 hill /4
13 fail	17 won't	12 carbon	15 individual /3
13 farm	17 wound /4	12 causes	15 influence /4
13 fear	16 actual /2	12 changed	15 inquire /4
13 foot	16 advantage /3	12 claim	15 insist /5
13 forces	16 attitude /2	12 confidence	15 involve /3
13 gives	16 beside /2	12 considerable	15 job /2
13 ideas	16 clean /5	12 cooperation	15 kill /4
13 job	16 cover /4	12 correspondent	15 lay /4
13 kindly	16 custom /5	12 cream	15 native /2
13 laid	16 depend /6	12 declared	15 neutral /2
13 learn	16 distribute /4	12 demanded	15 practise /3
13 looked	16 inspire /6	12 difference	15 proceed /6
13 market	16 listen /4	12 direct	15 promise /4
13 minute	16 necessity /2	12 driven	15 rapid /4
13 motor	16 north /3	12 excellent	15 resource /2
13 neither	16 obtain /3	12 expect	15 sign /3
13 neutral	16 ought	12 experts	15 sold
13 non	16 paid	12 favor	15 stay /3
13 orders	16 plant /4	12 fish	15 stone /2
13 paper	16 property	12 follow	15 stop /3
13 persons	16 refuse /4	12 forget	15 sweet /3
13 press	16 region /2	12 gets	15 treat /6
13 pressure	16 round /3	12 gold	15 wife /2
13 provide	16 size /3	12 grown	15 won
13 provided	16 stood	12 horse	15 worse /2
13 reached	16 suffer /3	12 immediately	14 accomplish /5
13 red	16 summer	12 largely	14 across
13 sacrifice	16 unto	12 late	14 airplane /2
13 satisfactory	16 vote /4	12 later	14 average
13 secure	16 waste /5	12 liberty	14 black /2
13 serious	16 whatever	12 majority	14 burn /3
13 seven	16 white	12 married	14 comfort /3
13 showing	16 wire /5	12 measure	14 conclude /6
13 simply	16 witness /5	12 mere	14 contribute /5
13 single	15 allow /5	12 middle	14 defeat /2
13 size	15 baby /3	12 mile	14 distance
13 table	15 bed /2	12 native	14 division /3
13 thousands	15 belong /4	12 natural	14 door /2
13 touch	15 broke /2	12 needed	14 dream /4
13 trains	15 consume /4	12 nobody	14 enclose /3
13 twelve	15 cry /4	12 normal	14 engine /2
13 village	15 democrat /3	12 officials	14 everywhere
13 weather	15 die /3	12 ordinary	14 examine /4
13 willing	15 due	12 organization	14 excel /3
76,605 [850]	83,814 /2,688	77,207 [900]	84,545 /2,833

Table 3	Table 4	Table 3	Table 4
12 peoples	14 extreme /2	11 deep	13 flag /4
12 placed	14 fast /3	11 delivered	13 foot
12 possibility	14 feature /3	11 developed	13 guest /2
12 prevent	14 fell	11 earth	13 income /3
12 principle	14 fit /4	11 election	13 indicate /7
12 quickly	14 forget /3	11 enclosed	13 king /2
12 reported	14 improve /5	11 engaged	13 laid
12 ring	14 introduce /3	11 engine	13 loyal /3
12 section	14 mistake /2	11 executive	13 majority/2
12 shipment	14 moral /5	11 existing	13 mass /3
12 shown	14 mystery /4	11 expected	13 master /2
12 sitting	14 period	11 express	13 mental /2
12 speaking	14 quarter /2	11 expressed	13 mention/2
12 spent	14 read *past*	11 fair	13 neither
12 stage	14 ride /4	11 fall	13 non
12 station	14 rush /3	11 fast	13 occasion/4
12 stop	14 sat	11 filled	13 occur /5
12 suit	14 satisfactory/2	11 finally	13 ordinary/2
12 taught	14 single /2	11 follows	13 page /2
12 telling	14 sometimes	11 forth	13 present/3 *v*
12 tonight	14 substitute/3	11 freedom	13 pressure
12 type	14 tomorrow/2	11 fund	13 previous/2
12 unknown	14 travel /6	11 gained	13 prison /3
12 using	14 weather /2	11 giving	13 pull /5
12 usual	14 winter /3	11 goes	13 quantity/2
12 voice	14 written	11 greatest	13 railway/2
12 wants	14 yard /2	11 happen	13 recognize /3
12 works	13 achieve /4	11 herself	13 red
12 yourself	13 admire /6	11 holding	13 share /3
11 abroad	13 agent /2	11 I'd	13 sound /5
11 acts	13 aim /3	11 immense	13 speech /2
11 afraid	13 altogether	11 influence	13 terrible/2
11 agents	13 apparent/2	11 instance	13 twelve
11 appeared	13 approximate/3	11 involved	13 universe/5
11 approximately	13 article /2	11 isn't	13 utter /4
11 bear	13 assure /5	11 judgment	13 vast /3
11 became	13 brother/3	11 lack	13 village
11 blue	13 campaign/2	11 latter	13 wide /2
11 book	13 complain/5	11 longer	13 wise
11 bore	13 convince/3	11 mental	12 absolute/3
11 bought	13 copy /3	11 mill	12 amend /6
11 bread	13 corporation/2	11 move	12 billion /2
11 busy	13 degree /2	11 north	12 blue /2
11 campaign	13 dwell /8	11 offices	12 bread /2
11 caught	13 earth /2	11 pictures	12 busy /2
11 construction	13 engineer/3	11 police	12 carbon
11 corn	13 estimate/3	11 prices	12 close /4 *v*
11 costs	13 event /3	11 private	12 confidence
11 credit	13 exceed /4	11 pure	12 cooperation
11 daily	13 finish /3	11 quality	12 corn /2
77,786 [*950*]	85,222 /2,978	78,336 [*1,000*]	85,861 /3,104

Table 3	Table 4	Table 4
11 railroads	12 cream	12 visit
11 responsible	12 daily /2	12 wage /4
11 running	12 devote /3	12 walk /4
11 seeing	12 disloyal	12 warm /5
11 serve	12 distinct /4	12 weak /6
11 shape	12 district /2	12 wood /4
11 shipping	12 driven	11 abroad
11 spring	12 east /3	11 accompany /4
11 staff	12 exercise /3	11 affect /5
11 started	12 floor /3	11 afford /3
11 stay	12 fright /5	11 afraid
11 stone	12 furnish /3	11 became
11 straight	12 hate /3	11 bought
11 striking	12 heaven /2	11 caught
11 successful	12 hence /2	11 cease /3
11 sum	12 highway /3	11 chapter /2
11 surely	12 honest /3	11 choice /2
11 sweet	12 ill /3	11 color /4
11 tomorrow	12 incident /3	11 consist /5
11 trade	12 insure /4	11 contrast /2
11 trying	12 manner /2	11 council /2
11 wasn't	12 march /3	11 credit
11 wide	12 middle	11 death /2
11 wife	12 nobody	11 definite /2
11 wild	12 normal	⑥ 11 dispatch /3
11 winter	12 physical /2	11 drop /4
11 worse	12 program /2	11 educate /4
78,633 [1,027]	12 protect /3	11 election
	12 record /5	11 engaged
	12 river /2	11 especial /2
	12 roll /5	11 evidence /2
	12 rub /3	11 evident /2
	12 seat /3	11 exact /3
	12 sentiment /3	11 extend /2
	12 shoulder /2	11 fix /4
	12 smile /4	11 forth
	12 speed /5	11 garden /3
	12 spent	11 generate /4
	12 spoke /2	11 glory /4
	12 square /3	11 hat /2
	12 stage	11 health /3
	12 submarine /2	11 hurry /3
	12 taught	11 ideal /3
	12 tend /8	11 immense
	12 tire /3	11 incline /3
	12 tonight	11 institute /4
	12 tree /2	11 instrument /3
	12 trench /2	11 latter
	12 union /2	11 launch /3
	12 unknown	11 lesson /2
	[1,050] 86,461 /3,234	[1,100] 87,017 /3,368

TABLE 4

11 manage /5
11 minor /3
11 mount /4
11 nice /3
11 notice /4
11 oblige /2
11 police
11 potato /2
11 private
11 pursue /5
11 quality
11 race /3
11 raid /4
11 rank /2
11 remove /3
11 reserve /5
11 retailer /2
11 sail /5
11 skill /2
11 spring
11 staff
11 stock /2
11 struggle /3
11 succeed /4
11 sum
11 summon/4
11 surprise /3
11 territory/3
11 wagon /2
11 wild
11 worry /3

[*1,131*]   87,358 /3,453

Note From a dozen to 20 " war words," such as *troops guns offensive bombardment artillery allies shells vessels patriotism neutral attacks submarine trench*, owe their presence in these tables to the fact that the material for analisis (Table 1, page 8) was selected during the spring of 1918, and that about half of that material was of an immediately current nature inevitably influenst by war conditions. Analisis of the original detaild data redily identifies and mesures the extent of this influence. A somewhat lesser number of words such as *war peace military gun soldiers fight*, which would hav

occurd in any case, ar abnormally enhanst in importance by the same conditions. The effect on the sillable or sound data is insignificant.

Table 5	Table 6	Table 5	Table 6
2,120 a	2,120 a	11 approximately	62 always
30 able	30 able	542 are	75 am
153 about	153 about	13 armies	12 amend /6
25 above	15 above	43 army	46 among
11 abroad	11 abroad	22 around	37 amount /3
17 according	12 absolute /3	13 arrived	330 an
20 account	20 accept /6	14 art	3,280 and
14 across	11 accompany/4	18 artillery	38 announce/6
15 act	14 accomplish/5	782 as	58 another
28 action	24 accord /4	30 ask	28 answer /4
11 acts	28 account /5	36 asked	210 any
12 addition	13 achieve /4	585 at	30 anything
15 address	14 across	18 attack	13 apparent /2
24 administration	70 act /8	12 attacks	32 appear /5
12 advance	20 active /3	19 attention	25 apply /6
14 advantage	16 actual /2	15 attitude	13 approximate/3
16 affairs	23 add /4	17 authority	549 are /2
11 afraid	21 addition /3	15 available	20 arm /4
107 after	24 address /4	16 avenue	57 army /3
31 afternoon	32 administer/6	14 average	22 around
62 again	13 admire /6	58 away	20 arrange /5
73 against	23 admit /5	16 awfully	25 arrive /4
19 age	21 advance /5	75 back	23 art /5
11 agents	16 advantage/3	15 bad	13 article /2
36 ago	20 affair /2	14 basis	19 artillery
13 aid	11 affect /5	38 battle	782 as
23 air	11 afford /3	846 be	75 ask /4
466 all	11 afraid	11 bear	13 assure /5
15 allies	117 after /3	14 beautiful	585 at
37 almost	33 afternoon/3	11 became	38 attack /4
21 alone	62 again	108 because	17 attempt /4
28 along	73 against	30 become	30 attend /6
27 already	24 age /3	(3)328 been	16 attitude /2
69 also	13 agent /2	139 before	27 authority/2
18 although	36 ago	23 began	17 avail /3
13 altogether	25 agree /7	27 beginning	17 avenue /2
62 always	18 aid /3	24 behind	14 average
75 am	13 aim /3	108 being	58 away
46 among	25 air /3	40 believe	24 awful /2
35 amount	14 airplane /2	52 best	15 baby /3
330 an	467 all /2	32 better	83 back /5
3,280 and	24 ally /3	60 between	23 bad /2
17 announced	15 allow /5	19 beyond	22 bank /5
15 announcement	37 almost	50 big	33 base /6
58 another	21 alone	15 bill	43 battle /3
18 answer	28 along	13 black	956 be /3
210 any	27 already	11 blue	27 bear /5
30 anything	69 also	15 board	24 beauty /3
12 apparently	18 although	18 body	11 became
11 appeared	13 altogether	19 bombardment	108 because

TABLE 5	TABLE 6	TABLE 5	TABLE 6
18 bonds	39 become /3	24 child	12 carbon
11 book	15 bed /2	35 children	48 care /9
34 books	329 been	14 citizens	55 carry /4
11 bore	139 before	44 city	71 case /2
45 both	23 began	12 claim	11 caught
11 bought	41 begin /4	14 class	57 cause /4
13 boy	24 behind	23 clear	11 cease /3
28 boys	59 believe /5	13 close *adj*	69 cent /2
11 bread	15 belong /4	33 coal	50 certain /3
13 break	16 beside /2	17 cold	26 chair /5
19 bring	52 best	123 come	39 change /4
13 broken	32 better	23 comes	11 chapter /2
33 brought	60 between	23 coming	20 character/3
25 building	19 beyond	14 command	42 charge /4
24 built	54 big /3	29 committee	19 cheap /4
91 business	21 bill /2	29 common	23 check /3
11 busy	12 billion /2	17 community	21 chief /3
504 but	14 black /2	23 company	39 child /4
27 buy	12 blue /2	28 complete	38 children /2
600 by	18 board /3	13 condition	11 choice /2
40 call	29 body /4	38 conditions	21 citizen /2
32 called	31 bombard /5	12 confidence	51 city /4
71 came	25 bond /3	15 consider	23 claim /3
11 campaign	45 book /2	12 considerable	19 class /3
197 can	17 bore /4	13 considered	16 clean /5
58 cannot	45 both	11 construction	38 clear /7
21 can't	11 bought	20 continue	12 close /4 *v*
33 capital	43 boy /4	16 contract	19 close /3 *a*
17 car	12 bread /2	17 control	33 coal
12 carbon	18 break /2	12 cooperation	18 cold /2
23 care	31 bring /3	11 corn	24 collect /10
21 carried	15 broke /2	12 correspondent	11 color /4
23 carry	13 brother /3	21 cost	171 come /4
18 cars	33 brought	11 costs	14 comfort /3
52 case	46 build /7	133 could	26 command/9
19 cases	24 built	14 couldn't	48 commit /6
11 caught	14 burn /3	92 country	31 common /3
32 cause	91 business	16 county	18 community/2
12 causes	12 busy /2	37 course	30 company /3
39 cent	504 but	22 court ·	13 complain /5
30 cents	36 buy /5	12 cream	39 complete /5
34 certain	600 by	11 credit	25 concern /4
14 certainly	85 call /6	18 cut	14 conclude /6
13 chair	71 came	11 daily	51 condition/2
21 change	19 camp /3	14 danger	17 conduct /5
12 changed	13 campaign/2	14 date	17 confer /3
17 character	277 can /4	101 day	12 confidence
23 charge	41 capital /6	70 days	52 consider /8
19 check	20 capture /3	48 dear	11 consist /5
14 chief	35 car /2	12 declared	17 constitute /6

Table 5	Table 6	Table 5	Table 6
11 deep	20 construct/4	44 enough	26 department/3
14 defender	15 consume/4	14 entire	16 depend/6
14 defense	21 contain/4	15 entirely	32 desire/6
16 delay	49 continue/11	14 equipment	34 destroy/7
11 delivered	24 contract/3	14 established	17 detail/3
16 demand	11 contrast/2	94 even	20 determine/4
12 demanded	14 contribute/5	21 evening	21 develop/4
22 department	32 control/5	51 ever	12 devote/3
13 desire	13 convince/3	124 every	123 did/2
11 developed	12 cooperation	17 everything	15 die/3
100 did	13 copy/3	14 everywhere	46 differ/7
23 didn't	12 corn/2	12 excellent	21 difficult/3
12 difference	13 corporation/2	23 except	30 dinner
25 different	25 correspond/5	11 executive	42 direct/8
30 dinner	37 cost/4	15 existence	26 discover/6
12 direct	147 could/2	11 existing	12 disloyal/3
14 distance	11 council/2	12 expect	11 dispatch/3
203 do	18 count/5	11 expected	14 distance
53 does	111 country/5	17 experience	12 distinct/4
36 doing	20 county/2	12 experts	16 distribute/4
22 dollars	38 course/2	11 express	12 district/2
40 done	23 court/2	11 expressed	14 division/3
67 don't	16 cover/4	18 eye	239 do/2
18 doubt	12 cream	33 eyes	63 does/2
95 down	11 credit	30 face	30 dollar/3
13 drawn	18 critic/7	58 fact	40 done
24 drive	17 cross/4	13 facts	67 don't
12 driven	17 crowd/4	13 fail	14 door/2
15 due	15 cry/4	15 failure	21 doubt/3
41 during	16 custom/5	11 fair	98 down/3
18 duty	29 cut/4	11 fall	23 draw/5
63 each	12 daily/2	22 family	14 dream/4
34 early	21 danger/4	63 far	17 drink/4
11 earth	17 date/2	13 farm	37 drive/4
14 easily	175 day/4	11 fast	12 driven
19 easy	29 deal/6	17 father	11 drop/4
17 effect	59 dear/5	12 favor	15 due
15 efficiency	11 death/2	13 fear	41 during
21 effort	22 decide/4	32 feel	24 duty/2
23 eight	21 declare/4	16 feeling	13 dwell/8
36 either	19 deep/5	30 feet	63 each
11 election	14 defeat/2	14 fell	41 early/3
24 electric	27 defend/7	15 fellow	13 earth/2
16 else	17 defense/3	15 felt	40 ease/5
11 enclosed	11 definite/2	54 few	12 east/3
33 end	13 degree/2	20 field	26 eat/5
31 enemy	21 delay/3	18 fifty	18 economy/7
17 enforced	26 deliver/5	21 fight	11 educate/4
11 engaged	38 demand/4	40 fighting	31 effect/5
11 engine	15 democrat/3	17 figures	15 efficiency

TABLE 5		TABLE 6		TABLE 5		TABLE 6	
11	filled	29	effort /2	11	giving	17	factory /2
15	final	23	eight	21	glad	45	fail /6
11	finally	36	either	73	go	18	fair /4
49	find	11	election	11	goes	20	faith /4
17	fine	28	electric /2	60	going	24	fall /4
15	fire	25	else /3	12	gold	26	family /3
131	first	30	employ /7	20	gone	64	far /2
12	fish	14	enclose /3	106	good	36	farm /6
49	five	50	end /5	17	goods	14	fast /3
25	flour	42	enemy /3	50	got	26	father /3
12	follow	35	enforce /4	57	government	25	favor /6
14	followed	11	engaged	134	great	23	fear /4
21	following	14	engine /2	16	greater	14	feature /3
11	follows	13	engineer /3	11	greatest	51	feel /3
53	food	44	enough	15	greatly	30	feet
13	foot	21	enter /4	23	ground	14	fell
1,035	for	29	entire /2	12	grown	20	fellow /3
23	force	22	equal /3	44	gun	15	felt
13	forces	21	equip /3	23	guns	56	few /2
18	foreign	11	especial /2	411	had	30	field /2
12	forget	26	establish /5	58	half	18	fifty
18	form	13	estimate /3	46	hand	62	fight /3
11	forth	94	even	32	hands	29	figure /3
33	forty	25	evening /3	11	happen	20	fill /4
17	forward	13	event /3	19	happy	27	final /3
55	found	51	ever	21	hard	57	find /3
35	four	124	every	390	has	22	fine /4
32	free	17	everything	617	have	13	finish /3
11	freedom	14	everywhere	31	having	32	fire /4
18	fresh	11	evidence /2	680	he	15	firm /5
17	friend	11	evident /2	27	head	131	first
17	friends	11	exact /3	25	hear	22	fish /7
433	from	14	examine /4	23	heard	14	fit /4
46	front	13	exceed /4	18	heart	49	five
35	full	14	excel /3	21	heavy	11	fix /4
11	fund	23	except	29	held	13	flag /4
29	further	27	execute /8	25	help	12	floor /3
29	future	12	exercise /3	222	her	26	flour /2
11	gained	17	expense /3	107	here	18	fly /4
36	gave	17	expert /2	11	herself	58	follow /4
37	general	18	explain /4	46	high	55	food /2
16	generally	36	express /6	17	higher	13	foot
89	get	11	extend /2	234	him	1,035	for
12	gets	14	extreme /2	51	himself	49	force /6
16	getting	54	eye /3	517	his	19	foreign /2
32	girl	41	face /3	18	history	14	forget /3
18	girls	85	fact /4	22	hold	54	form /8
57	give			11	holding	11	forth
46	given			63	home	37	forty /3
13	gives			16	honor	18	forward /2

Words

TABLE 5	TABLE 6	TABLE 5	TABLE 6
30 hope	56 found /2	13 kindly	31 hear /3
12 horse	41 four /3	30 knew	23 heard
17 horses	45 free /3	102 know	26 heart /7
26 hour	18 fresh	24 knowledge	12 heaven /2
26 hours	39 friend /4	33 known	33 heavy /5
53 house	12 fright /5	30 knows	29 held
124 how	433 from	39 labor	36 help /5
22 however	49 front /3	11 lack	12 hence /2
19 human	47 full /3	13 laid	234 her /3
21 hundred	19 fund /3	25 land	110 here /2
1,155 I	12 furnish /3	39 large	22 hero /4
11 I'd	29 further	12 largely	81 high /4
29 idea	29 future	15 larger	12 highway /3
13 ideas	21 gain /4	18 largest	15 hill /4
263 if	11 garden /3	77 last	285 him /2
20 I'll	15 gather /5	12 late	517 his
30 I'm	36 gave	12 later	24 history /5
14 immediate	55 general /4	11 latter	39 hold /5
12 immediately	11 generate /4	34 law	71 home /3
11 immense	20 gentle /5	16 laws	12 honest /3
24 important	117 get /3	13 learn	22 honor /3
26 impossible	50 girl /2	15 learned	50 hope /8
2,116 in	127 give /4	19 least	29 horse /2
15 increased	21 glad	18 leave	55 hour /4
24 indeed	11 glory /4	48 left	66 house /3
15 industrial	144 go /3	53 less	146 how /2
15 industry	15 gold /2	51 let	26 human /4
11 influence	20 gone	36 letter	24 hundred /2
24 information	125 good /3	20 letters	11 hurry /3
11 instance	50 got	12 liberty	1,236 I /5
17 instead	78 govern /9	89 life	42 idea /2
48 interest	178 great /5	18 light	11 ideal /3
19 interesting	31 ground /2	113 like	263 if
166 into	29 grow /5	52 line	12 ill /3
11 involved	13 guest /2	27 lines	22 imagine /5
1,213 is	72 gun /3	21 list	26 immediate /2
11 isn't	414 had /2	111 little	11 immense
16 issue	58 half	20 live v	33 import /3
1,216 it	81 hand /4	22 living	26 impossibie
208 its	19 handle /5	25 loan	14 improve /5
38 it's	31 happen /5	94 long	2,116 in
26 itself	29 happy /5	11 longer	12 incident /3
20 I've	31 hard /7	30 look	11 incline /3
13 job	390 has	13 looked	21 include /4
11 judgment	11 hat /2	23 looking	13 income /3
86 just	12 hate /3	20 loss	40 increase /4
20 justice	658 have /3	15 losses	24 indeed
32 keep	687 he /3	28 lost	13 indicate /7
22 kept	38 head /7	32 love	15 individual /3
31 kind	11 health /3	16 low	39 industry /4

TABLE 5	TABLE 6	TABLE 5	TABLE 6
18 machine	15 influence /4	20 mother	19 liberty /2
170 made	36 inform /4	13 motor	90 life /2
16 main	15 inquire /4	11 move	⑤ 18 light
12 majority	15 insist /5	14 moved	129 like /7
105 make	16 inspire /6	104 much	23 limit /4
26 makes	17 instance /2	163 must	79 line /2
32 making	17 instead	296 my	22 list /2
156 man	11 institute /4	33 myself	16 listen /4
104 many	18 instruct /5	40 name	112 little /2
13 market	11 instrument /3	14 names	58 live /4
12 married	12 insure /4	37 nation	34 loan /2
19 material	82 interest /4	21 national	110 long /7
71 matter	166 into	16 nations	69 look /4
160 may	14 introduce /3	12 native	63 loss /3
257 me	17 invest /4	12 natural	52 love /7
23 mean	15 involve /3	20 nature	25 low /5
46 means	1,224 is /2	23 near	13 loyal /3
12 measure	34 issue /4	15 nearly	30 machine /3
17 meat	1,488 it /4	35 necessary	170 made
19 meet	15 job /2	15 necessity	23 main /2
20 meeting	25 judge /5	32 need	20 maintain /4
16 members	110 just /4	12 needed	13 majority /2
19 memory	45 keep /5	21 needs	165 make /6
164 men	22 kept	13 neither	167 man /5
11 mental	15 kill /4	13 neutral	11 manage /5
12 mere	57 kind /4	101 never	12 manner /2
18 merely	13 king /2	99 new	24 manufacture/6
20 met	30 knew	18 news	104 many
20 method	171 know /4	44 next	12 march /3
12 middle	25 knowledge /2	46 night	20 mark /4
77 might	52 labor /6	321 no	17 market /4
12 mile	21 lack /4	12 nobody	23 marry /4
29 miles	12 laid	13 non	13 mass /3
51 military	36 land /4	17 none	13 master /2
19 milk	84 large /4	28 nor	19 material
11 mill	85 last /4	12 normal	76 matter /2
22 million	34 late /4	11 north	162 may
16 millions	11 latter	589 not	257 me
39 mind	11 launch /3	24 note	72 mean /4
13 minute	57 law /6	61 nothing	17 measure /4
16 minutes	15 lay /4	210 now	24 meat /3
15 miss	28 lead /5	32 number	44 meet /4
23 modern	30 learn /3	18 numbers	24 member /2
27 moment	19 least	17 object	20 memory /2
60 money	27 leave /4	21 o'clock	168 men /2
24 month	48 left	3,998 of	13 mental /2
32 months	56 less /4	43 off	13 mention /2
210 more	11 lesson /2	22 offensive	30 mere /2
45 morning	51 let	27 office	20 met
105 most	56 letter /2	23 officers	26 method /2

Table 5	Table 6	Table 5	Table 6
11 offices	12 middle	15 personal	12 nobody
22 official	84 might /5	13 persons	13 non
12 officials	42 mile /3	16 picture	17 none
27 often	51 military	11 pictures	28 nor
53 oh	20 milk /2	52 place	12 normal
19 oil	19 mill /2	12 placed	16 north /3
75 old	42 million /4	18 places	589 not
643 on	44 mind /3	16 plain	34 note /5
59 once	25 mine /5	22 plan	61 nothing
368 one	11 minor /3	19 plans	11 notice /4
14 ones	39 minute /3	18 play	210 now
189 only	19 miss /4	15 please	53 number /4
31 open	14 mistake /2	16 pleased	39 object /10
14 operation	23 modern	16 pleasure	11 oblige /2
24 opinion	33 moment /4	32 point	17 observe /7
16 opportunity	60 money	11 police	16 obtain /3
458 or	62 month /4	23 political	13 occasion /4
48 order	14 moral /5	23 poor	13 occur /5
13 orders	210 more	23 position	21 o'clock
12 ordinary	46 morning /2	12 possibility	3,998 of
12 organization	107 most /2	54 possible	43 off
169 other	28 mother /3	22 pound	30 offense /3
25 others	23 motor /6	26 pounds	18 offer /5
16 ought	11 mount /4	57 power	38 office /2
331 our	44 move /6	15 practical	34 officer /3
20 ourselves	104 much	61 present *a & n*	37 official /3
203 out	168 must /2	17 president	27 often
153 over	329 my /2	13 press	53 oh
75 own	14 mystery /4	13 pressure	20 oil /2
16 paid	68 name /5	23 pretty	84 old /4
13 paper	59 nation /3	12 prevent	643 on
79 part	22 national /2	30 price	59 once
19 particular	15 native /2	11 prices	389 one /3
17 parts	21 natural /4	12 principle	189 only
27 party	21 nature /2	11 private	49 open /6
20 pass	52 near /4	18 probably	43 operate /9
17 passed	38 necessary /3	18 problem	28 opinion /2
29 past	16 necessity /2	21 products	18 opportunity/2
14 patriotism	69 need /6	15 progress	458 or
43 pay	19 neighbor /4	21 proper	71 order /4
59 peace	13 neither	16 property	13 ordinary /2
163 people	15 neutral /2	16 proposed	36 organize /4
12 peoples	101 never	13 provide	194 other /2
60 per	104 new /4	13 provided	16 ought
21 perfect	18 news	68 public	357 our /3
26 perhaps	44 next	11 pure	206 out /3
14 period	11 nice /3	42 purpose	153 over
17 permit	49 night /2	16 purposes	90 own /6
19 permitted	18 nine /5	63 put	26 pack /7
14 person	321 no	11 quality	13 page /2

TABLE 5	TABLE 6	TABLE 5	TABLE 6
23 question	16 paid	111 say	13 prison /3
16 questions	19 paint /6	27 saying	11 private
12 quickly	23 paper /2	52 says	21 probab'e /3
27 quite	97 part /3	23 school	23 problem /2
11 railroads	29 particular/3	25 sea	15 proceed /6
20 range	36 party /3	24 second	23 produce /6
18 rate	50 pass /4	12 section	29 product /4
32 rather	29 past	13 secure	23 profit /5
17 reach	27 patriot /6	103 see	12 program /2
13 reached	67 pay /6	11 seeing	21 progress /3
24 read *present*	62 peace /3	19 seem	15 promise /4
14 read *past*	180 people /3	26 seemed	21 proper
19 ready	60 per	30 seems	16 property
31 real	35 perfect /4	36 seen	32 propose /5
33 really	26 perhaps	17 self	12 protect /3
23 reason	14 period	28 send	30 provide /4
16 reasons	48 permit /5	19 sense	19 provision /2
23 received	48 person /6	28 sent	69 public /2
18 recent	12 physical /2	13 serious	13 pull /5
16 recently	30 picture /3	11 serve	23 purchase /6
13 red	85 place /4	48 service	18 pure /4
20 regard	27 plain /3	48 set	58 purpose /2
14 region	48 plan /4	13 seven	11 pursue /5
22 remember	16 plant /4	37 several	67 put /3
19 report	32 play /5	120 shall	11 quality
12 reported	33 please /3	11 shape	13 quantity /2
22 reports	17 pleasure /2	188 she	14 quarter /2
18 required	48 point /3	15 shells	44 question /4
15 respectfully	11 police	18 ship	18 quick /5
11 responsible	38 politic /6	12 shipment	27 quite
18 rest	24 poor /2	11 shipping	11 race /3
28 result	23 position	20 ships	11 raid /4
17 return	22 possess /8	118 should	21 railroad /3
91 right	72 possible /4	31 show	13 railway /2
12 ring	11 potato /2	13 showing	17 raise /5
21 road	49 pound /3	12 shown	11 rank /2
21 room	68 power /3	43 side	15 rapid /4
14 round	25 practical /2	16 sight	20 range
18 run	15 practice /3	19 similar	27 rate /3
11 running	25 prepare /4	18 simple-	32 rather
13 sacrifice	68 present /3a & n	13 simply	37 reach /4
15 safe	13 present /3 v	52 since	46 read /5 v
161 said	19 president /2	13 single	14 read *past*
67 same	24 press /4	14 sit	19 ready
14 sat	13 pressure	12 sitting	72 real /4
13 satisfactory	27 pretty /4	40 situation	25 realize /4
33 save	21 prevent /5	37 six	48 reason /6
17 saved	13 previous /2	13 size	36 receive /4
14 saving	45 price /4	46 small	34 recent /2
41 saw	20 principle /2	300 so	13 recognize /3

TABLE 5	TABLE 6	TABLE 5	TABLE 6
16 social	12 record /5	17 suppose	31 secure /6
15 sold	13 red	21 sure	153 see /4
27 soldiers	22 reduce /3	11 surely	20 seek /3
152 some	19 refer /6	11 sweet	75 seem /3
40 something	16 refuse /4	19 system	22 seize /5
14 sometimes	35 regard /5	13 table	29 self /4
42 soon	16 region /2	86 take	22 sell /4
20 sort	17 relate /7	46 taken	19 senate /4
16 south	25 remain /5	22 taking	33 send /2
17 speak	18 remark /5	20 talk	25 sense /5
12 speaking	37 remember/4	16 task	28 sent
26 special	11 remove /3	12 taught	12 sentiment/3
12 spent	59 report /6	22 tea	20 serious /3
14 spirit	28 represent/7	51 tell	33 serve /6
11 spring	46 require /5	12 telling	54 service /3
11 staff	11 reserve /5	24 ten	54 set /3
12 stage	15 resource /2	17 terms	18 settle /5
43 stand	40 respect /8	194 than	26 seven /5
14 standard	22 responsible /3	21 thank	37 several
11 started	18 rest	1,345 that	120 shall
36 state	44 result /4	21 that's	18 shape /4
38 statement	11 retailer /2	7,310 the	13 share /3
12 station	33 return /4	315 their	194 she /3
11 stay	14 ride /4	228 them	23 shell /3
48 steel	110 right /6	34 themselves	67 ship /7
14 step	17 ring /3	115 then	19 short /4
58 still	12 river /2	306 there	119 should /2
11 stone	31 road /2	16 therefore	12 shoulder /2
16 stood	12 roll /5	152 these	72 show /5
19 stooped	24 room /3	478 they	50 side /2
12 stop	16 round /3	44 thing	19 sight /3
20 story	12 rub /3	82 things	15 sign /3
11 straight	21 rule /5	73 think	19 similar
17 strange	31 run /4	19 thinking	33 simple /4
21 street	14 rush /3	22 third	52 since
19 strength	18 sacrifice /3	24 thirty	14 single /2
14 strike	28 safe /4	572 this	29 sit /4
11 striking	161 said	104 those	41 situation /2
14 strong	11 sail /5	38 though	53 six /5
14 study	67 same	67 thought	16 size /3
32 subject	14 sat	27 thousand	11 skill /2
19 success	14 satisfactory/2	13 thousands	21 slave /3
11 successful	64 save /3	75 three	54 small /3
132 such	41 saw	78 through	12 smile /4
12 suit	191 say /4	14 throughout	300 so
11 sum	33 school /4	17 thus	18 social /3
16 summer	31 sea /2	19 till	15 sold
14 supplies	12 seat /3	205 time	41 soldier /5
19 supply	24 second	27 times	152 some
18 support	17 section /3	2,924 to	40 something

TABLE 5		TABLE 6		TABLE 5		TABLE 6	
(+) 68	today	14	sometimes	20	victory	16	summer
17	to-day	48	soon /2	29	view	11	summon /4
25	together	25	sort /3	13	village	45	supply /4
33	told	13	sound /5	12	voice	24	support /5
11	tomorrow	17	south /2	14	wait	22	suppose /2
12	tonight	34	speak /5	44	want	33	sure /3
16	tons	35	special /5	24	wanted	11	surprise /3
57	too	13	speech /2	12	wants	15	sweet /3
40	took	12	speed /5	214	war	25	system /7
17	total	12	spent	839	was	17	table /3
13	touch	21	spirit /3	11	wasn't	164	take /4
19	toward	12	spoke /2	39	water	33	talk /4
18	town	11	spring	104	way	21	task /2
11	trade	12	square /3	15	ways	20	tax /4
19	train	11	staff	529	we	19	teach /5
17	training	12	stage	13	weather	12	taught
13	trains	61	stand /3	25	week	22	tea
15	transportation	18	standard /3	15	weeks	71	tell /3
26	troops	22	start /3	113	well	12	tend /8
21	trouble	92	state /6	50	went	24	ten
30	true	18	station /3	305	were	22	term /2
30	truly	15	stay /3	15	west	13	terrible /2
17	trust	48	steel	253	what	11	territory /3
21	truth	22	step /3	16	whatever	17	test /4
14	try	58	still	32	wheat	194	than
11	trying	11	stock /2	237	when	31	thank /4
17	turn	15	stone /2	83	where	1,367	that /3
30	turned	16	stood	31	whether	7,310	the
13	twelve	20	stoop /2	454	which	319	their /2
30	twenty	15	stop /3	78	while	262	them /2
146	two	24	store /4	16	white	115	then
12	type	22	story /2	248	who	329	there /3
108	under	22	straight /5	45	whole	152	these
19	understand	28	strange /5	28	whom	495	they /4
12	unknown	31	street /2	42	whose	126	thing /2
21	unless	20	strength /2	51	why	99	think /3
50	until	26	strike /3	11	wide	22	third
16	unto	22	strong /4	11	wife	25	thirty /2
204	up	11	struggle /3	11	wild	572	this
129	upon	19	study /4	445	will	194	those
123	us	40	subject /4	13	willing	38	though
28	use *n*	12	submarine/2	17	win	75	thought /3
36	use *v*	14	substitute/3	11	winter	40	thousand /2
45	used	11	succeed /4	13	wise	75	three
12	using	34	success /5	28	wish	94	through /2
12	usual	16	suffer /3	727	with	20	throw /4
26	value	132	such	20	within	17	thus
14	various	23	suggest /6	70	without	19	till
145	very	20	suit /4	59	woman	232	time /2
15	vessels	11	sum	47	women	12	tire /3

TABLE 5	TABLE 6
15 won	2,924 to
14 wonder	88 today /2
17 won't	25 together
19 word	33 told
18 words	14 tomorrow/2
83 work	22 ton /3
13 working	12 tonight
12 works	57 too
103 world	40 took
11 worse	19 total /2
22 worth	24 touch /5
252 would	24 toward /2
15 wouldn't	20 town /2
21 write	19 trade /5
14 written	56 train /5
32 wrong	26 transport /3
59 year	14 travel /6
93 years	15 treat /6
23 yes	12 tree /2
33 yesterday	12 trench /2
68 yet	26 troops
775 you	36 trouble /5
41 young	60 true /2
214 your	29 trust /5
16 you're	22 truth /2
56 yours	25 try /2
12 yourself	54 turn /4
	13 twelve
	31 twenty /2
	146 two
	18 type /2
	109 under /2
	30 understand /3
	12 union /2
	13 universe /5
	12 unknown
	21 unless
	50 until
	16 unto
	207 up /3
	129 upon
	123 us
	28 use *n*
	100 use *v* /6
	19 usual /2
	13 utter /4
	38 value /5
	17 vary /3
	13 vast /3
	145 very

TABLE 6

18 vessel /2	
22 victor /3	
37 view /4	
13 village	
12 visit /4	
18 voice /3	
16 vote /4	
12 wage /4	
11 wagon /2	
24 wait /3	
12 walk /4	
83 want /4	
217 war /2	
12 warm /5	
850 was /2	
16 waste /5	
25 watch /3	
49 water /3	
119 way /2	
537 we /3	
12 weak /6	
14 weather /2	
40 week /2	
17 weight /5	
113 well	
50 went	
307 were /2	
21 west /3	
260 what /2	
16 whatever	
36 wheat /2	
237 when	
83 where	
31 whether	
454 which	
79 while /2	
16 white	
248 who	
52 whole /2	
28 whom	
42 whose	
51 why	
13 wide /2	
15 wife /2	
11 wild	
464 will /6	
20 win /3	
17 window /2	
14 winter /3	
16 wire /5	

TABLE 6

13 wise
38 wish /4
727 with
20 within
70 without
16 witness /5
59 woman
48 women /2
15 won
27 wonder /5
17 won't
12 wood /4
38 word /3
127 work /7
117 world /4
11 worry /3
15 worse /2
27 worth /3
267 would /2
17 wound /4
40 write /5
14 written
39 wrong /2
14 yard /2
152 year /2
23 yes
33 yesterday
68 yet
808 you /5
41 young
283 your /4

Note in Table 3 that almost exactly 500 words occur over 20 times. By ignoring words of frequency 20 or under Table 5 may thus be red as an alfabetic list of the 500 commonest words which make up about 2/3 of all ordinary speech.

See also note on "war words" at end of Table 3 (page 30).

Part 3—Sillables

Part 3 — Sillables

Relativ frequency of the commoner sillables of English

As with the commoner words, the commoner sillables of English make up a strikingly large proportion of all ordinary discourse. To parallel the facts observd:

10,119 different particular words make up 100,000 total.

About 4,400 different sillables, on a 41 sound basis, make up 143,000 total.

117 words occur over 100 times, and make up 56.0 % of the total.

220 sillables occur over 100 times, and make up 68.7 % of the total.

1,027 words occur over 10 times, and make up 78.6 % of the total.

1,370 sillables occur over 10 times, and make up 93.3 % of the total.

The sillable is investigated in as much detail as hereafter reported because it affords the only constant, redily distinguisht, and easily manipulated unit between simple sounds on the one hand and complete words on the other; and also because separate study of those consonant combinations occurring before and after the vowel of the sillable suffices to investigate practically all the caracteristic sound combinations of English; leaving explicitly unstudied only those combinations occurring at the junction of sillables, much les uniform and caracteristic, and sufficiently exhibited by the commoner words investigated.

Tables 7 and 8 following show the 220 commonest sillables which occur oftener than 100 times each in 100,000 words; first, arranged in order of frequency; second, clast by vowels and arranged in order of frequency under each vowel.

The fonetic notation adopted is the S S B key alfabet, strictly in harmony with the Revised Scientific Alfabet, shown in detail in Appendix A. Readers not familiar with the Revised Scientific Alfabet, Key 1 of the Standard Dictionary, should study this notation before examining the results hereafter reported.

The distinctiv treatment accorded the commonest word or sillable of English, *the*, is discust at length under sounds (pages 123 and 126).

Thruout the sillable data occasional sillables containing a or ʊ ar markt with a *, to call attention to the slightly variant sound of a or ʊ which usually occurs before **r**. The precise nature of these variant sounds wil be discust in connection with the sound data (page 126).

Note that in such sillables as *bl n l pl nt* the sillabic *n* or *l* has vowel value, and is accordingly treated as the "vowel" of the sillable.

The 6 sillable tables which follow ar each based on the 1,370 commonest sillables occurring oftener than 10 times in 100,000 words, which make up 93.3% of the total number of sillable occurrences. In view of the diversity of the material analized, and the more general caracter of sillables as compared with words, the conclusion seems warranted that these tables include most or all of those sillables likely to occur more than sporadically in any selection of 10,000 or even 100,000 words.

Study of the sillable, whether as a complete speech-unit or as a combining form, may focus on the vowel of the sillable, the initial sounds, or the final sounds. These tables exhibit the 1,370 commonest sillables under each of these 3 aspects.

Table 9, which presents the 1,370 commonest sillables clast by vowels, in order of frequency under each vowel, calls for no special comment. Table 10 is merely a conspectus of Table 9. In connection with the tables arranged according to initial or final sounds, however, certain structural caracteristics of the English language should be observd.

One of the markt caracteristics of English, of superlativ importance in constructing a sistem of shorthand, is the tendency of certain consonant sounds to occur in combinations of 2, 3, and even 4, both before and after the vowel of the sillable in which they occur, spoken in a single voice impulse with the vowel. The double combinations ar commonly known as consonant difthongs.*

* Distinguish clearly between a digraf, two letters for one sound, and a difthong, two vowel sounds (in the case of a consonant difthong, two adjoining consonant sounds) pronounced in one sillable.

TABLE 7   220 COMMONEST SILLABLES, OCCURRING OFTENER THAN 100 TIMES IN 100,000 WORDS, IN ORDER OF FREQUENCY

7,310	ꭰı	464	ê	235	pər	153	baıt	114	biz
4,001	əv	462	an	233	hur	152	ꭰız	113	kun
3,284	in	454	hwiç	230	yūr	152	lit	111	jen
3,280	and	446	so	228	for	152	haı	110	nev
3,217	i	433	frəm	226	pro	147	kud	110	e
3,167	ə	414	had	225	kəm	147	lêŋ	108	til
3,152	tû	412	wun	224	ful	147	hır	108	gud
2,353	iŋ	402	ment	222	tám	146	ver	107	pər
2,084	ər	394	haz	221	mor	145	kêz	107	muç
1,625	ri	386	bl	221	wêr	143	rát	106	stand
1,416	it	386	ən	218	pl	142	bər	106	wurld
1,346	ꭰat	382	men	218	man	141	mêk	106	ens
1,286	iz	379	ərz	212	ʃənz	141	ij	105	tərz
1,259	á	378	aır	211	wê	141	im	105	sád
1,201	li	343	n	210	naı	140	pê	104	ꭰoz
1,136	fêr	341	má	210	mê	136	tiv	104	sit
967	bı	335	ꭰar	207	sê	134	did	104	ak
923	ʃən	333	up	206	tri	133	lák	104	egz
907	ed	332	aıt	200	sı	132	suç	104	ənz
862	yû	329	bin	200	nê	132	ərn	101	ik
850	wəz	328	wur	194	pəs	131	furst	98,149	[220]
841	wiꭰ	323	ꭰêr	194	pur	130	pri		
835	di	308	ev	193	rı	130	mi		
830	ti	306	mı	188	ʃı	129	ħıŋ		
816	ən	305	tu	187	ni	129	mə		
783	az	295	eks	186	est	127	kəl		
707	o	293	its	186	ı	127	get		
696	hı	291	kan	184	ꭰan	127	u		
686	a	290	dər	182	nù	126	mən		
679	əl	285	him	181	grêt	126	am		
675	en	282	us	181	is	125	hwar		
658	hav	281	wud	179	to	124	mit		
644	bá	277	sum	179	go	124	wurk		
642	ar	277	hwet	179	mêd	124	ərd		
621	bi	276	if	178	sur	123	part		
612	at	276	on	177	ad	122	tin		
602	êr	270	kum	171	têk	122	wel		
596	nət	268	yu	166	kə	121	giv		
575	tər	266	dê	166	self	121	let		
572	ꭰis	264	nes	166	les	120	sent		
570	əl	264	l	165	must	120	su		
556	kən	263	si	162	ent	120	sub		
537	wı	262	ꭰem	161	sed	120	ʃal		
529	ez	261	dis	161	çur	119	təl		
517	but	258	uꭰ	160	tê	119	ʃud		
517	hiz	252	hû	155	most	119	nt		
478	ꭰê	251	vər	155	ə	117	mil		
478	no	246	hwen	154	lê	116	mo		
470	wil	239	dū	154	af	115	tiz		
466	un	238	pı	153	po	115	ꭰen		
63,814		*79,914*		*89,468*		*96,012*			

ʌ		ə		o		u		û		ȧ		ė	aɪ		ù	
but	517	ə	3167	o	707	tu	305	tû	3152	á	1259		aɪr	378	nù	1...
un	466	ər	2084	no	478	wud	281	yû	862	bá	644		aɪt	332		
wun	412	ʃən	923	so	446	yu	268	hû	252	má	341		naɪ	210		
up	333	tər	575	on	276	ful	224	dû	239	tám	222		baɪt	153		
wur*	328	əl	570	for	228	çur	161	yûr	230	rát	143		haɪ	152		
us	282	ən	386	pro	226	kud	147			lák	133					
sum	277	ərz	379	mor	221	u	127			sád	105					
kum	270	dər	290	to	179	ʃud	119									
uʃ	258	vər	251	go	179	gud	108									
hur*	233	pər	235	most	155											
pur*	194	ʃənz	212	po	153											
sur	178	bər	142	mo	116											
must	165	ərn	132	floz	104											
suç	132	mə	129													
furst*	131	kəl	127													
wurk*	124	mən	126													
su	120	ərd	124													
sub	120	təl	119													
kun	113	tərz	105													
muç	107	ənz	104													
wurld*	106															
4,866		**10,180**		**3,468**		**1,740**		**4,735**		**2,847**		0	**1,225**		**182**	
21		20		13		9		5		7		0	5		1	

TABLE 8. 220 COMMONEST SILLABLES CLAST BY VOWELS,

dı	n,l	a	ɑ	e	ê	i	ı	ө	ә
7,310	bl 386	and 3280	ar 642	ed 907	ďê 478	in 3284	bı 967	өv 4001	fәr 1136
	n 346	ďat 1346	part 123	en 675	ê 464	i 3217	hı 696	wөz 850	әl 679
	l 264	az 783	par 107	ez 529	ďêr 323	iŋ 2353	wı 537	өn 816	әr 602
	pl 218	a 686		ment 402	dê 266	ri 1625	mı 306	nөt 596	wәr 221
	nt 119	hav 658		men 382	wê 211	it 1416	pı 238	kөn 556	lәŋ 147
		at 612		ev 308	mê 210	iz 1286	sı 200	frөm 433	kәz 145
		an 462		eks 295	sê 207	li 1201	rı 193	hwөt 277	
		had 414		nes 264	nê 200	wiď 841	ſı 188	kөm 225	
		haz 394		ďem 262	grêt 181	di 835	ı 186	pөs 194	
		ďar* 335		hwen 246	mêd 179	ti 830	ďız 152	kө 166	
		kan 291		est 186	têk 171	bi 621	hır 147	ө 155	
		man 218		self 166	tê 160	dis 572			
		ďan 184		les 166	lê 154	hiz 517			
		ad 177		ent 162	mêk 141	wil 470			
		af 154		sed 161	pê 140	hwiç 454			
		ɑm 126		ver 146		bin 329			
		hwar* 125		get 127		its 293			
		ſal 120		wel 122		him 285			
		stand 106		let 121		if 276			
		ak 104		sent 120		si 263			
				ďen 115		dis 261			
				jen 111		tri 206			
				nev 110		ni 187			
				e 110		is 181			
				ens 106		lit 152			
				egz 104		ij 141			
						im 141			
						tiv 136			
						did 134			
						pri 130			
						mi 130			
						hiŋ 129			
						mit 124			
						tin 122			
						giv 121			
						mil 117			
						tiz 115			
						biz 114			
						til 108			
						sit 104			
						ik 101			
7,310									
I									
tal									
8,149	1,330	10,575	872	6,403	3,485	23,922	3,810	8,269	2,930
220	5	20	3	26	15	41	11	11	6

By analogy the triple combinations may be cald conso-
nant trifthongs, and the exceptional quadruple combina-
tions (as in *tempts*, *sixths*, *worlds*, etc) quadrifthongs.   The
combinations occurring before the vowel of their sillable
may wel be named preceding consonant difthongs and
trifthongs, and the combinations occurring after the vowel
of their sillable following consonant difthongs, trifthongs,
or quadrifthongs.

Preceding consonant compounds ar formd chiefly by
l r and *w* after other consonants, and by *s* before; the
trifthongs having always the form of *s* preceding a dif-
thong — that is s'l- (s-consonant-l-vowel), s'r-, or s'w-.
Following consonant compounds ar more varied and
numerous.   The more important of these ar formed by s
and z, t and d, and with l and r; les often by ħ, m, n, ŋ.

Appendix B tabulates 57 consonants or consonant
compounds which occur in English preceding the vowel
of their sillable, of which 51 occur among the commonest
sillables here reported; 181 consonants or consonant com-
pounds which occur following the vowel of their sillable,
of which 96 occur among the commonest sillables; also
51 sillabic consonant combinations, of which 22 occur
among the commonest sillables.   These appended tables
wil repay careful study in this connection altho their data
ar not directly quantitativ.

Table 11 presents the 1,370 commonest sillables in
fonetic order, thus bringing together those sillables which
begin with the same sound or sound combination.
Table 12, which summarizes Table 11, shows at a glance
the comparativ frequency of the various preceding con-
sonant compounds.

Table 13 presents the 1,370 commonest sillables in reverse
fonetic order (riming dictionary order), thus bringing
together those sillables which end with the same sound
or sound combination.   Table 14 summarizes Table 13,
showing similarly the comparativ frequency of the various
following consonant compounds.

So far as l can determin the results here reported con-
stitute the first and only reliable quantitativ data with
respect to the caracteristic sound combinations, other
than words, of English.   The tables follow.

TABLE 9   1,370 COMMONEST SILLABLES OCCURRING OFTENER THAN
10 TIMES IN 100,000 WORDS, CLAST BY VOWELS, IN ORDER
OF FREQUENCY UNDER EACH VOWEL

n		l		a					
n	343	bl	386	and	3280	land	36	par*	19
nt	119	l	264	ɖat	1346	akt	36	baŋk	19
vn	98	pl	218	az	783	askt	36	kam	19
zn	59	plz	34	a	686	ab	34	pak	18
nd	44	lz	30	hav	658	av	34	blak	18
pn	41	tl	28	at	612	tab	33	bar	18
znz	32	ld	28	an	462	tak	32	gram	18
nz	20	dl	20	had	414	taks	32	farz*	18
dn	16	gl	20	haz	394	raɖ	32	skwar*	18
kn	15	kl	17	ɖaf*	335	handz	32	vans	17
		klz	15	kan	291	par	30	aŋ	17
		blz	13	man	218	mas	30	task	16
				ɖan	184	naʃ	29	fast	16
				ad	177	aj	29	lak	16
				af	154	trakt	28	dam	15
				am	126	fam	28	gaɖ	15
				hwar*	125	van	27	gal	15
				ʃal	120	haps	26	rap	15
				stand	106	plan	25	trak	14
				ak	104	pard*	25	kat	14
				mat	90	mar	25	çap	14
				kar	88	bad	24	flat	13
				bak	87	ħaŋk	24	fakts	13
				last	86	ap	24	vast	13
				fak	80	kant	23	sam	13
				hap	69	ar*	23	hab	13
				kap	66	al	23	paç	12
				pas	65	klas	22	pan	12
				haf	63	war*	22	ban	12
				bat	58	glad	21	klard*	12
				fakt	58	fan	21	staf	12
				hand	57	naç	21	standz	12
				val	53	ɖats	21	ag	12
				mand	53	sak	21	trast	11
				trans	51	han	21	graf	11
				sat	50	as	21	⑦ ɖarz*	11
				past	47	pat	20	lat	11
				prak	44	trav	20	wag	11
				gan	42	nan	20	akts	11
				ask	37	mag	20		
						planz	19		
	787		1,073						13,453
	10		12						120

a		e							
ar	642	ed	907	jekt	66	sep	32	test	20
part	123	en	675	sev	64	et	32	spek	20
par	107	ez	529	el	63	twen	31	streŋh	20
larj	69	ment	402	gen	62	ven	31	nent	20
far	65	men	382	yes	57	hweɗ	31	mes	20
gard	47	ev	308	sek	56	preʃ	30	rev	20
kar	43	eks	295	hed	56	⑧ter	30	reg	19
çarj	39	nes	264	pen	55	sents	30	tempt	18
farm	35	ɗem	262	selvz	55	ef	30	mend	18
bard	31	hwen	246	pres	53	lekt	29	er	18
mar	31	est	186	best	52	lent	29	plez	17
hard	31	self	166	tem	52	help	29	dek	17
fa	26	les	166	sez	52	dres	28	kwest	17
hart	25	ent	162	went	50	vest	28	frendz	17
bar	23	sed	161	left	48	vent	28	meʒ	17
start	22	ver	146	tend	46	zent	28	eh	17
arm	22	get	127	ker	46	çer	28	te	16
gar	19	wel	122	kwes	45	prest	27	def	16
art	19	let	121	hev	45	fen	27	gres	16
karz	18	sent	120	nekst	44	vel	27	felt	16
mark	18	ɗen	115	ej	44	sted	27	net	16
lar	18	jen	111	sel	43	res	27	med	16
parts	17	nev	110	end	43	elz	27	ents	16
marks	17	e	110	dens	42	fens	26	ded	15
yardz	16	ens	106	sept	41	meh	26	se	15
har	15	egz	104	rekt	41	west	26	ʃel	15
çarjd	11	tel	100	send	40	met	25	ʃelz	15
a	11	prez	99	bet	38	her	25	jes	15
		sen	99	tent	38	els	25	nek	15
		ek	99	geɗ	38	fend	24	ren	15
		ments	97	rep	38	per	23	weɗ	15
		es	94	ber	36	tens	23	bred	14
		ten	87	dren	36	kept	23	kwent	14
		set	86	pekt	35	frend	23	fed	14
		em	86	spekt	35	kred	22	step	14
		dent	82	fel	35	ref	22	seʃ	14
		mem	80	speʃ	35	des	21	jekts	14
		red	79	sens	35	den	21	twelv	13
		genst	73	dem	34	ket	21	tes	13
		lek	73	fer	34	freʃ ·	21	dev	13
		fekt	70	rest	34	fek	21	dents	13
		ses	69	jest	33	çek	21	gets	13
	1,560	rek	69	held	33	jek	21	spes	13
	28	yet	68	dred	32	lem	21	jent	13
				ves	32	pend	20	jents	13

		ē						i	
lej	13			sēf	33	stēj	12	in	3284
pel	12	đē	478	fēl	32	ſēp	12	i	3217
trenç	12	ē	464	rēt	32	bēs	11	iŋ	2353
dwel	12	đēr	323	tēnd	31	gējd	11	ri	1625
spent	12	dē	266	gē	31	gēnd	11	it	1416
zen	12	wē	211	wēz	30	frēd	11	iz	1286
ſens	12	mē	210	çēnj	29	hēt	11	li	1201
mens	12	sē	207	strēt	28	rēs	11	wiđ	841
rez	12	nē	200	strēnj	28	rēz	11	di	835
rej	12	grēt	181	mēks	26	wēj	11	ti	830
hens	12	mēd	179	dēn	24			bi	621
helh	12	tēk	171	dēt	23			đis	572
ets	12	tē	160	brēk	22			hiz	517
peſ	11	lē	154	tēl	21			wil	470
bed	11	mēk	141	fēh	21			hwiç	454
beg	11	pē	140	vēl	21			bin	329
tekt	11	rē	99	sēl	21			its	293
del	11	ēt	97	nēt	21			him	285
gest	11	kē	89	ēj	21			if	276
splen	11	stēt	89	tēt	20			si	263
zes	11	kēm	82	ēr	20			dis	261
ſer	11	plēs	81	plēnz	19			tri	206
nest	11	dēz	78	pēn	19			ni	187
welh	11	kēs	71	pēnt	19			is	181
ests	11	lēt	70	ēd	19			lit	152
		sēm	67	pēd	18			im	141
		mēn	59	sēvd	17			ij	141
		bē	54	mēt	16			tiv	136
		trē	54	rēd	16			did	134
		vē	49	lēd	16			pri	130
		sēv	49	trēd	15			mi	130
		nēm	48	çēnjd	15			hiŋ	129
		plēn	45	wēst	15			mit	124
		tēn	43	plēst	14			tin	122
		fēs	42	tēks	14			giv	121
		zē	40	klēm	14			mil	117
		rēl	39	nēmz	14			tiz	115
		plē	38	pēj	13			biz	114
		stē	38	trēnz	13			til	108
		trēn	37	grē	13			sit	104
		gēv	36	gēt	13			ik	101
		fē	35	slēv	13			fiſ	98
		rēnj	35	mēl	13			hiŋk	93
12,076		wēt	35	trēt	12	6,126		id	86
204		kēt	33	vēd	12	99			

						I			
iʃ	84	lib	30	lis	18			mɪr	30
min	83	wiʃ	30	trib	17	bɪ	967	krɪs	28
bil	82	izm	30	vij	17	hɪ	696	tɪn	27
hiŋz	82	fig	29	vil	17	wɪ	537	dɪl	27
diʃ	81	fif	28	çis	17	rɑɪ	306	ʃɪn	27
ʃip	77	sig	28	rid	17	pɪ	238	lɪd	27
lik	76	sin	28	bliŋ	16	sɪ	200	ɪv	27
liv	71	liŋ	28	biʃ	16	rɪ	193	fɪ	26
sis	70	sil	28	tiʃ	16	ʃɪ	188	sɪmd	26
wiz	69	prit	27	liʃ	16	ɪ	186	dɪd	25
tik	68	fit	27	kwip	15	ɖɪz	152	rɪç	24
siv	68	ʃips	27	kil	15	hɪr	147	fɪld	23
mis	68	niŋ	27	spriŋ	15	yɪrz	93	nɪ	23
tis	65	miʃ	27	nif	15	· hrɪ	75	ɪt	23
sinn	65	bilt	26	niz	15	pɪs	74	lɪ	22
dif	63	trik	26	priz	14	lɪv	71	lɪst	22
fi	58	spir	26	driŋk	14	dɪ	63	fɪr	21
stil	58	riz	26	ki	14	mɪt	63	strɪt	21
sid	58	lij	26	fil	14	ɪç	63	nɪdz	21
ziʃ	57	his	26	spi	14	nɪr	61	hɪ	20
big	55	il	25	siz	14	twɪn	60	sɪm	20
vis	55	pli	24	riŋ	14	yɪr	60	çɪf	20
bli	54	triz	24	hi	14	dɪr	58	tɪç	19
iŋz	53	briŋ	2ɜ	iv	14	ɪz	56	dɪp	19
sins	52	tivz	23	dik	13	stɪl	51	sɪt	19
win	50	diz	22	kiŋ	13	sɪd	51	sɪz	19
siks	49	rit	22	givz	13	frɪ	50	çɪp	19
wim	48	ʃi	21	fiz	13	fɪl	48	klɪn	18
ist	48	jin	21	vit	13	sɪn	48	swɪt	18
bild	47	mid	21	ɖi	13	nɪd	48	plɪz	17
vi	44	wit	21	sik	13	kɪp	47	sɪk	17
sti	44	ists	21	nid	13	mɪnz	46	sɪv	17
list	43	prin	20	driv	12	fɪt	44	lɪs	17
pi	42	bit	20	kwit	12	rɪd	43	plɪzd	16
siç	41	tij	20	fild	12	tɪ	42	wɪks	16
ji	40	fin	20	strikt	12	wɪk	42	krɪst	15
viz	39	milk	20	riç	12	plɪt	41	pɪr	14
çil	39	sist	19	rij	12	hwɪt	38	pɪrd	14
gin	38	siŋ	19	brij	11	prɪ	36	trɪt	14
lim	35	zi	19	tif	11	klɪr·	34	trɪm	14
pik	34	krit	19	hi	11	mɪn	34	krɪt	14
vik	32	iʃt	19	skil	11	spɪk	31	spɪç	13
pin	30	kwik	18	livd	11	grɪ	30	rɪçt	13
din	30	viz	18			sɪvd	30	rɪn	13
nit	30	skrip	18		*28,388*	sɪmz	30	rɪr	13
niʃ	30	miz	18		*179*				

		ə		pəp		ɝ			
ɪst	13			pəp	18			tɝt	12
bɪt	12	əv	4001	bəndz	18	fɝr	1136	wɝnts	12
trɪ	12	wəz	850	lət	18	ɝl	679	bɝt	11
krɪm	12	ən	816	wəç	18	ɝr	602	bɝrn	11
spɪd	12	nət	596	kwəl	17	wɝr	221	kɝt	11
krɪ	11	kən	556	həs	16	lɝŋ	147	mɝr	11
grɪz	11	frəm	433	əg	16	kɝz	145	wɝrm	11
fɪldz	11	hwət	277	prəg	15	ɝf	72		
sɪs-	11	kəm	225	tər	15	wɝnt	71		
lɪf	11	pəs	194	vəl	15	hɝt	68		
lɪvz	11	kə	166	vəlvd	15	ɝ	61		
ɪrz	11	ə	155	prəks	14	wɝ	55		
		əf	96	kwən	13	smɝl	54		
		əb	95	mən	13	kɝl	47		
		əp	88	jəb	13	lɝ	47		
		fər	80	jər	13	mɝrn	46		
		bəd	67	kəŋ	12	nɝr	46		
		ət	67	mək	12	sɝ	43		
		prəp	66	ək	12	fɝrm	38		
		fəl	61	təl	11	lɝs	35		
		gət	55	kəsts	11	pɝr	34		
		prəb	45			kɝr	34		
		spən	45			kɝld	34		
		məd	38			brɝt	33		
		əl	35			rɝŋ	32		
		bəm	34			hɝrs	31		
		mər	33			kɝrd	28		
		nəl	32			fɝl	28		
		prəf	30			lɝst	28		
		dəl	30			krɝs	25		
		hər	28			kwɝr	24		
		nəm	28			tɝk	23		
		pəl	27			strɝŋ	23		
		kəst	26			sɝrt	21		
		kər	26			ʃɝrt	21		
		prəd	24			gɝn	20		
		klək	23			fɝrmd	20		
		prəm	22			drɝ	18		
		pə	22			wɝrd	18		
		dək	22			nɝrth	16		
		kəp	21			lɝz	16		
		prəs	20			ɝt	16		
		kəl	20			brɝd	14		
6,507		nən	20	**9,019**		drɝn	14	**4,277**	
101		yənd	19	*65*		kɝrn	14	*51*	

ʊ						ə			
but	517	tʊrnd*	41	fʊn	16	ə	3167	gər	33
ʊn	466	dʊn	40	sʊf	16	ər	2084	jər	30
wʊn	412	kʊl	40	lʊrnd*	16	ʃən	923	tərd	29
ʊp	333	trʊb	37	ʊl	16	tər	575	mər	29
wʊr*	328	hʊr*	37	dʊkt	15	əl	570	dərd	27
ʊs	282	zʊlt	37	jʊr*	15	ən	386	gən	27
sʊm	277	jʊs	37	lʊrn*	15	ərz	379	sərz	27
kʊm	270	mʊs	36	sʊrv*	14	dər	290	zənd	27
ʊñ	258	mʊnħs	35	sʊrç*	14	vər	251	nə	27
hʊr*	233	vʊr*	34	sʊrn*	14	pər	235	nər	27
pʊr*	194	kʊmz	32	mʊl	14	ʃənz	212	ənd	26
sʊr*	178	gʊrl*	32	brʊñ	13	bər	142	rəl	25
mʊst	165	trʊst	31	wʊrks*	13	ərn	132	ət	25
sʊç	132	mʊʃ	31	ʊrħ*	13	mə	129	də	24
fʊrst*	131	rʊn	31	pʊrts*	12	kəl	127	dəm	24
wʊrk*	124	hʊrd*	31	blʊd	12	mən	126	fə	24
sʊ	120	mʊr*	30	bʊrn*	12	ərd	124	zən	24
sʊb	120	mʊnħ	28	kʊp	12	təl	119	fər	23
kʊn	113	kʊs	27	vʊrt*	12	tərz	105	nəns	22
mʊç	107	ʃʊs	27	sʊmp	12	ənz	104	stəns	21
wʊrld*	106	hʊn	26	rʊb	12	ñər	97	yər	21
jʊst	100	bʊv	25	bʊr*	11	rə	75	ənt	21
pʊb	83	ʊm	25	tʊs	11	lər	73	ərt	21
fʊr*	81	sʊn	24	fʊnd	11	pə	72	trəl	20
gʊv	78	kʊt	23	vʊrs*	11	yən	67	kwəl	20
dʊz	69	gʊnz	23	strʊg	11	tə	63	məl	20
nʊħ	61	sʊg	23	stʊr*	11	nəl	63	stənt	18
mʊn	60	jʊj	23	rʊʃ	11	pəs	61	əz	18
wʊns	59	wʊrħ*	23	wʊrs*	11	ʃəl	56	çənz	17
nʊm	58	dʊk	22	wʊrldz*	11	bərz	53	bərd	16
tʊr*	57	ħʊrd*	22			sər	52	fərt	16
gʊn	56	ʊt	22			ək	49	vəl	16
ʊr*	53	ʊkts	21			wərd	47	sə	16
frʊnt	51	tʊç	20			əns	41	jən	15
kʊv	49	zʊrv*	20			tənt	40	lə	15
dʊs	48	strʊkt	19			sən	40	əpt	15
strʊk	48	sʊs	19			yənz	38	trə	14
turn*	47	wʊrd*	19			təns	36	təm	14
sʊk	47	gʊrlz*	18			kə ·	36	gəl	14
mʊŋ	46	fʊrm*	18			jərz	36	sənz	14
kʊr*	45	wʊrdz*	18			əlz	36	pərz	13
nʊf	44	tʊrmz*	17			çən	35	tən	13
lʊv	43	ñʊs	17			əd	35	zəndz	13
yʊŋ	43	nʊn	17			dərz	33	bən	12
		tʊnz	16	7,773	119			və	12

hər	11	o		vot	25	u		û	
		o	707	forħ	24	tu	305	tû	3152
		no	478	oz	24	wud	281	yû	862
		so	446	stor	23	yu	268	hû	252
		on	276	rodz	21	ful	224	dû	239
		for	228	kort	20	çur	161	yûr	230
		pro	226	bord	19	kud	147	⑨ hrû	96
		mor	221	od	19	u	127	yûrz	56
		to	179	klos	19	ʃud	119	yûz	54
		go	179	klozd	19	gud	108	fûd	53
		most	155	kold	18	put	73	ʃûr	53
		po	153	roz	18	wu	57	sûn	48
		mo	116	post	17	luk	56	yûs	48
		ʃoz	104	bro	17	ur	52	yûzd	45
		old	84	wont	17	çu	47	hûz	42
		port	77	gro	15	tuk	40	mûv	38
		hom	69	gron	15	yur	37	nûn	37
		dont	67	gold	15	buks	34	trû	30
		hol	61	sold	15	stud	28	hûm	28
		ɖo	60	zors	15	çurz	26	trûps	26
		lo	60	bor	13	zu	23	skûl	25
		fors	59	goz	13	fut	19	pûr	24
		sol	58	hro	13	çurd	19	rûm	24
		hold	51	kloz	12	yurz	19	klûd	23
		lon	50	glo	12	buk	18	prûv	21
		ʃo	48	spok	12	hud	18	trûħ	21
		por	47	ston	12	gudz	17	stûpt	19
		kors	46	ʃon	12	flu	16	mûvd	18
		boħ	45	ʃol	12	lukt	16	jû	16
		non	45	fo	11	yut	16	klû	14
		ro	44	fon	11	stru	11	rûl	13
		ko	42	vo	11	ud	11	yûn	13
		hop	41	ho	11			tûr	12
		rod	37					prûvd	11
		poz	35					blû	11
		told	34					lûz	11
		kol	34					wûnd	11
		noz	32						
		tro	30						
		ports	29						
		pozd	28						
		not	28						
		do	27						
12,350		forst	27	*5,418*		*2,393*		*5,676*	
90		trol	25	77		31		36	

á		láz		ɵ́		aɪ		ù	
á	1259	láz	26	pɵ́nt	51	aɪr	378	nù	182
bá	644	wáz	26	bɵ́z	29	aɪt	332	fù	100
má	341	fán	25	lɵ́	25	naɪ	210	mù	55
tám	222	strák	25	plɵ́	22	baɪt	153	dù	51
rát	143	tá	24	ɵ́l	20	haɪ	152	bù	49
lák	133	hánd	24	vɵ́s	19	daɪn	99	dùr	47
sád	105	plád	23	bɵ́	15	paɪ	77	dùs	39
há	100	kwárd	23	strɵ́	15	haɪs	70	hù	35
láf	91	fár	23	jɵ́	14	faɪnd	64	kù	34
mát	85	zár	23	çɵ́s	11	kaɪn	52	vù	34
hwál	80	dá	22			maɪnt	43	sù	34
nát	64	ál	22			haɪ	40	nùz	33
fát	62	pláz	20			raɪnd	39	lù	31
lát	61	áv	20			kaɪnt	37	tù	28
áz	61	vás	17			aɪrz	34	kùr	28
fánd	60	sádz	17			paɪndz	26	dùst	27
kánd	53	hwát	17			daɪt	26	tùd	24
lán	53	nán	16			graɪnd	25	sùt	21
hwá	51	mán	16			flaɪr	25	sùm	21
fáv	49	táz	15			paɪnd	24	lùt	20
sá	48	flá	15			haɪz	23	tùt	19
mánd	48	fás	15			naɪns	22	pùṫ	17
fá	45	rávd	15			saɪh	21	tùn	17
trá	45	práz	14			naɪnst	20	gù	17
prás	43	táp	14			taɪn	19	tùr	11
támz	42	krá	14			kraɪd	15		
plá	39	rád	14			saɪnd	11		
lá	39	ráz	14			laɪd	11		
dráv	37	wád	14						
fád	37	wár	14						
ázd	37	ád	14						
kwár	35	váz	13						
tár	34	mál	13						
vád	34	frát	12						
sát	32	spát	12						
çáld	32	wáf	12						
prá	30	tárd	11						
rá	30	dád	11						
ám	30	ráts	11						
kwát	28	wáld	11						
vá	28								
málz	28								
lánz	27	*5,258*		*221*		*2,048*		*973*	
sáz	26	*84*		*10*		*28*		*25*	

TABLE 10   SUMMARY OF TABLE 9

Vowel sound	Occurrences	Items
n	787	10
l	1,073	12
n, l	*1,860*	*22*
a	13,453	120
ɑ	1,560	28
e	12,076	204
ê	6,126	99
i	28,388	179
ɪ	6,507	101
ɵ	9,919	65
ɵ̂	4,277	51
ʊ	7,773	119
ə	12,350	90
o	5,418	77
u	2,393	31
û	5,676	36
Vowel	*115,916*	*1,200*
ȧ	5,258	84
ė	221	10
ɑɪ	2,048	28
u̇	973	25
Diſthong	*8,500*	*147*
ʧɪ	7,310	1
n, l	*1,860*	*22*
Vowel	*115,916*	*1,200*
Diſthong	*8,500*	*147*
Total	133,586	1,370

TABLE 11   1370 COMMONEST SILLABLES IN FONETIC ORDER

	n, l	a	ɑ	e	ē	i	ɪ	ɵ	θ
pl 460/16		plan 25 planz 19		pleʒ 17	plē 38 plēs 81 plēst 14 plēn 45 plēnz 19	pli 24	plɪt 41 plɪz 17 plɪzd 16		
pr 1,061/2		prak 44		pres 53 prest 27 prez 99 preʃ 30		pri 130 prit 27 priz 14 prin 20	prɪ 36	prɵp 66 prɵb 45 prɵd 24 prɵks 14 prɵg 15 prɵf 30 prɵs 20 prɵm 22	
p 3,242/59	pn 41 pl 218 plz 34	pat 20 pak 18 pas 65 past 47 paç 12 pan 12 par 30 par* 19 pard* 25	par 107 part 123 parts 17	pekt 35 peʃ 11 pen 55 pend 20 pel 12 per 23	pē 140 pēd 18 pēj 13 pēn 19 pēnt 19	pi 42 pik 34 pin 30	pɪ 238 pɪs 74 pɪr 14 pɪrd 14	pɵ 22 pɵp 18 pɵs 194 pɵl 27	pɵr
bl 111/5		blak 18				bli 54 bliŋ 16			
br 147/8				bred 14	brēk 22	brij 11 briŋ 23			brɵt brɵd

ʊ	ə	o	u	û	á	é	aı	ù
					plá 39 pláɗ 23 pláz 20	plé 22		
		pro 226		prûv 21 prûvd 11	prá 30 prás 43 práz 14			
pub 83 pur* 194 purts* 12	pə 72 pəs 61 pər 235 pərz 13	po 153 post 17 poz 35 pozd 28 por 47 port 77 ports 29	pu 73	pûr 24		péint 51	paı 77 paınd 24 paındz 26	pùr 17
blud 12				blû 11				
bruɗ 13		bro 17						

	n, l	a	ɑ	e	ê	i	ɪ	ɵ	ɵ
b $\frac{5,121}{51}$	bl 386 blz 13	bat 58 bad 24 bak 87 ban 12 baŋk 19 bar 18	bɑr 23 bɑrd 31	bet 38 bed 11 beg 11 best 52 ber 36	bê 54 bês 11	bi 621 bit 20 big 55 biz 114 biʃ 16 bin 329 bil 82 bilt 26 bild 47	bɪ 967 bɪt 12	bɵd 67 bɵm 34 bɵndz 18	bɵt bɵrn
tr $\frac{859}{28}$		trak 14 trakt 28 trav 20 trast 11 trans 51		trenç 12	trê 54 trêt 12 trêd 15 trên 37 trênz 13	tri 206 trib 17 trik 26 triz 24	trɪ 12 trɪt 14 trīm 14		
tw $\frac{104}{3}$				twen 31 twelv 13			twɪn 60		
t $\frac{8,123}{77}$	tl 28	tab 33 tak 32 taks 32 task 16		te 16 tekt 11 tes 13 test 20 tem 52 tempt 18 ten 87 tent 38 tend 46 tens 23 tel 100 ter 30	tê 160 têt 20 têk 171 têks 14 tên 43 tênd 31 têl 21	ti 830 tik 68 tif 11 tiv 136 tivz 23 tis 65 tiz 115 tiʃ 16 tij ˋ20 tin 122 tii 108	tɪ 42 tɪç 19 tɪn 27	tɵl 11 tɵr 15	tɵt tɵk

υ	ə	o	u	û	ȧ	ė	aɪ	ù
but 517 buv 25 bur* 11 burn* 12	bən 12 bər 142 bərd 16 bərdz 53	boħ 45 bor 13 bord 19	buk 18 buks 34		bȧ 644	bė 15 bėz 29	baɪt 153	bù 49
trub 37 trust 31	trə 14 trəl 20	tro 30 trol 25		trû 30 trûps 26 trûħ 21	trȧ 45			
tus 11 tuç 20 tunz 16 tur* 57 turmz* 17 turn* 47 turnd* 41	tə 63 təm 14 tən 13 tənt 40 təns 36 təl 119 tər 575 tərd 29 tərz 105	to 179 told 34	tu 305 tuk 40	tû 3152 tûr 12	tȧ 24 tȧp 14 tȧz 15 tȧm 222 tȧmz 42 tȧr 34 tȧrd 11		taɪn 19	tù 28 tùt 19 tùd 24 tùn 17 tùr 11

		n, l	a	ɑ	e	ê	i	ɪ	ɵ	ə
r	$\frac{191}{8}$				dred 32 dres 28 dren 36		driv 12 driŋk 14			drə 1. drən 1.
w	$\frac{12}{1}$				dwel 12					
	$\frac{3,657}{54}$	dn 16 dl 20	dam 15		ded 15 dek 17 def 16 dev 13 des 21 dem 34 den 21 dent 82 dents 13 dens 42 del 11	dê 266 dêt 23 dêz 78 dên 24	di 835 did 134 dik 13 dif 63 dis 261 diz 22 diʃ 81 din 30	dɪ 63 dɪp 19 dɪd 25 dɪl 27 dɪr 58	dɵk 22 dɵl 30	
l	$\frac{210}{11}$		klas 22 klard* 12			klêm 14		klɪn 18 klɪr 34	klɵk 23	
r	$\frac{175}{10}$				kred 22		krit 19	krɪ 11 krɪt 14 krɪs 28 krɪst 15 krɪm 12		krəs 2.
w	$\frac{281}{13}$				kwes 45 kwest 17 kwent 14		kwip 15 kwit 12 kwik 18		kwɵn 13 kwɵl 17	kwər 2.

ʊ	ə	o	u	û	á	ə̇	aı	u̇
					dráv 37			
uk 22	də 24	do 27		dû 239	dá 22		daıt 26	du̇ 51
ukt 15	dəm 24	dont 67			dád 11		daın 99	du̇s 39
us 48	dər 290							du̇st 27
uz 69	dərd 27							du̇r 47
un 40	dərz 33							
		klos 19		klû 14				
		kloz 12		klûd 23				
		klozd 19						
					krá 14		kraıd 15	
	kwəl 20				kwát 28			
					kwár 35			
					kwárd 23			

	n, l	a	ɑ	e	ê	i	ɪ	ə	ə̄
k 3,724 60	kn 15 kl 17 klz 15	kap 66 kat 14 kam 19 kan 291 kant 23 kaʏ 88	kɑr 43 kɑrz 18	kept 23 ket 21 ker 46	kê 89 kêt 33 kês 71 kêm 82	ki 14 kiŋ 13 kil 15	kîp 47	kə 166 kəp 21 kəst 26 kəsts 11 kəm 225 kən 556 kəŋ 12 kəl 20 kər 26	kə̄t 1 kə̄ʑ 14 kə̄l 4 kə̄ld 3 kə̄r 3 kə̄rd 2 kə̄rn 1
l 33 2		glad 21							
r 335 10		graf 11 gram 18		gres 16	grê 13 grêt 181		grî 30 grîz 11		
1,461 36	gl 20	gari 15 gan 42 gal 15	gar 19 gard 47	get 127 gets 13 geri 38 gest 11 gen 62 genst 73	gê 31 gêt 13 gêv 36 gêjd 11 gênd 11	giv 121 givz 13 gin 38		gət 55	gə̄n 2
69 4		flat 13							
r 618 8				freʃ 21 frend 23 frendz 17	frêd 11		frî 50	from 433	

ʊ	ə	o	u	û	ȧ	e̊	aɪ	u̇
kʊp 12	kə 36	ko 42	kud 147		kȧnd 53		kaɪn 52	kü 34
kʊt 23	kəl 127	kol 34					kaɪnt 37	kür 28
kʊv 49		kold 18						
kʊs 27		kort 20						
kʊm 270		kors 46						
kʊmz 32								
kʊn 113								
kʊl 40								
kʊr* 45								
		glo 12						
		gro 15					graɪnd 25	
		gron 15						
gʊv 78	gən 27	go 179	gud 108					gü 17
gʊn 56	gəl 14	goz 13	gudz 17					
gʊnz 23	gər 33	gold 15						
gʊrl* 32								
gʊrlz* 18								
			flu 16		flȧ 15		flaɪr 25	
frʊnt 51					frȧt 12			

	n, l	a	ɑ	e	ê	i	ɪ	ϴ	ϴ̄
4,048 / 71		fak 80 fakt 58 fakts 13 fast 16 fam 28 fan 21 farz* 18	fɑ 26 fɑr 65 fɑrm 35	fed 14 fek 21 fekt 70 fen 27 fend 24 fens 26 fel 35 felt 16 fer 34	fê 35 fêh 21 fês 42 fêl 32	fi 58 fit 27 fig 29 fif 28 fiz 13 fiʃ 98 fin 20 fil 14 fild 12	fɪ 26 fɪt 44 fɪl 48 fɪld 23 fɪldz 11 fɪr 21	fϴl 61 fϴr 80	fϴl 28 fϴr 1136 fϴrm 38 fϴrmd 20
1,364 / 38	vn 98	vast 13 van 27 vans 17 val 53		ves 32 vest 28 ven 31 vent 28 vel 27 ver 146	vê 49 vêd 12 vêl 21	vi 44 vit 13 vik 32 vis 55 viz 18 viʒ 39 vij 17 vil 17		vϴl 15 vϴlvd 15	
hr 184 / 3							hrɪ 75		
554 / 11		haŋk 24				hi 11 hiŋ 129 hiŋk 93 hiŋz 82	hɪ 20	hϴr 28	hϴt 68
4,090 / 16		ðat 1346 ðats 21 ðan 184 ðar* 335 ⑦ ðarz* 11		ðem 262 ðen 115	ðê 478 ðêr 323	ði 13 ðis 572	ðɪz 152		
spl 11 / 1				splen 11					

υ		ə		o		u		û		á		ė		aı		ù	
n	16	fə	24	fo	11	fut	19	fûd	53	fá	45			faınd	64	fu	100
nd	11	fər	23	fon	11	ful	224			fát	62						
r*	81	fərt	16	for	228					fád	37						
rst*	131			forħ	24					fáv	49						
rm*	18			fors	59					fás	15						
				forst	27					fán	25						
										fánd	60						
										fár	23						
r*	34	və	12	vo	11					vá	28	vės	19			vù	34
rt*	12	vəl	16	vot	25					vád	34						
rs*	11	vər	251							vás	17						
										váz	13						
						ħro	13	⑨ ħrû	96								
r*	37													ħaı	40		
rd*	22																
s	17	ɖər	97	ɖo	60												
				ɖoz	104												

	n, l	a	ɑ	e	ê	i	ɪ	ə	ә
spr $\frac{15}{1}$						spriŋ 15			
sp $\frac{280}{13}$				spek 20 spekt 35 spes 13 speʃ 35 spent 12		spi 14 spir 26	spɪd 12 spɪk 31 spɪç 13	spən 45	
str $\frac{261}{12}$				streŋh 20	strêt 28 strênj 28	strikt 12	strɪt 21		strəŋ
st $\frac{617}{19}$		staf 12 stand 106 standz 12	stɑrt 22	step 14 sted 27	stê 38 stêt 89 stêj 12	sti 44 stil 58	stɪl 51		
skr $\frac{18}{1}$						skrip 18			
skw $\frac{18}{1}$		skwar* 18							
sk $\frac{36}{2}$						skil 11			

ʊ	ə	o	u	û	a̓	e̓	aɪ	u̓
		spok 12			spa̓t 12			
truk 48 trukt 19 trʊg 11			stru 11		stra̓k 25	stre̓ 15		
tʊr* 11	stənt 18 stəns 21	ston 12 stor 23	stud 28	stûpt 19				
			skûl 25					

	n, l	a	ɑ	e	ê	i	ɪ	Θ	ə̄
sm									smɵl 5-
$\frac{54}{1}$									
sl					slêv 13				
$\frac{13}{1}$									
sw							swɪt 18		
$\frac{18}{1}$									
s		sat 50 sak 21 sam 13		se 15 sep 32 sept 41 set 86 sed 161 sek 56 sev 64 ses 69 sez 52 seʃ 14 sen 99 sent 120 sents 30 send 40 sens 35 sel 43 self 166 selvz 55	sê 207 sêʃ 33 sêv 49 sêvd 17 sêm 67 sêl 21	si 263 sit 104 sid 58 sik 13 siks 49 sig 28 siv 68 sis 70 sist 19 siz 14 siç 41 sim 65 sin 28 sins 52 siŋ 19 sil 28	sɪ 200 sɪt 19 sɪd 51 sɪk 17 sɪv 17 sɪvd 30 sɪs 11 sɪz 19 sɪm 20 sɪmd 26 sɪmz 30 sɪn 48		sə̄ 43 sə̄rt 2
$\frac{5,188}{90}$									
z	zn 59 znz 32			zes 11 zen 12 zent 28	zê 40	zi 19 ziʃ 57			
$\frac{393}{14}$									

ʋ		ə		o		u	û		á		ə̇	aɪ		ù	
u	120	sə	16	so	446		sûn	48	sá	48		saɪh	21	sù	34
ub	120	sən	40	sol	58				sát	32		saɪnd	11	sùt	21
uk	47	sənz	14	sold	15				sád	105				sùm	20
ug	23	ser	52						sádz	17					
uf	16	serz	27						sáz	26					
us	19														
uç	132														
um	277														
ump	12														
un	24														
ur*	178														
urv*	14														
urç*	14														
urn*	14														
ult	37	zənd	27	zors	15				zár	23					
urv*	20	zəndz	13												

	n, l	a	ɑ	e	ê	i	ɪ	ɵ	ə̂
ʃ 2,008 / 21		ʃal 120		ʃens 12 ʃel 15 ʃelz 15 ʃer 11	ʃêp 12	ʃi 21 ʃip 77 ʃips 27	ʃɪ 188 ʃɪn 27		ʃə̂rt
ʒ 47 / 2									
ç 600 / 19		çap 14	çarj 39 çarjd 11	çek 21 çer 28	çênj 29 çênjd 15	çis 17 çil 39	çɪp 19 çɪf 20		
j 659 / 21				jek 21 jekt 66 jekts 14 jes 15 jest 33 jen 111 jent 13 jents 13		ji 40 jin 21		jɵb 13 jər 13	
m 5,514 / 74		mat 90 mag 20 mas 30 man 218 mand 53 mar 25	mar 31 mark 18 marks 17	met 25 med 16 meh 26 mes 20 mez 17 mem 80 men 382 ment 402 ments 97 mend 18 mens 12	mê 210 mêt 16 mêd 179 mêk 141 mêks 26 mên 59 mêl 13	mi 130 mit 124 mid 21 mis 68 miz 18 miʃ 27 min 83 mil 117 milk 20	mɪ 306 mɪt 63 mɪn 34 mɪnz 46 mɪr 30	mɵd 38 mɵk 12 mɵn 13 mɵr 33	mə̂r mə̂rn

ʊ	ə	o	ɹ	ū	á	ė	aɪ	ù
ʃʊs 27	ʃan 923 ʃənz 212 ʃəl 56	ʃo 48 ʃon 12 ʃol 12	ʃud 119	ʃūr 53				
	ʒən 24		ʒu 23					
	çən 35 çənz 17		çu 47 çur 161 çurd 19 çurz 26		çáld 32	çės 11		
jʊs 37 jʊst 100 jʊj 23 jʊr* 15	jən 15 jər 30 jərz 36			jū 16		jė 14		
mʊd 31 mʊs 36 mʊst 165 mʊç 107 mʊn 60 mʊnh 28 mʊnhs 35 mʊŋ 46 mʊl 14 mʊr° 30	mə 129 mən 126 məl 20 mər 29	mo 116 most 155 mor 221		mūv 38 mūvd 18	má 341 mát 85 mán 16 mánd 48 mál 13 málz 28		maɪnt 43	mù 55

	n, l	a	ɑ	e	ê	i	ɪ	⊖	⊖
n 3,527 51	See page 80	naʃ 29 naç 21 nan 20		net 16 nek 15 nekst 44 nev 110 nes 264 nest 11 nent 20	nê 200 nêt 21 nêm 48 nêmz 14	ni 187 nit 30 nid 13 nif 15 niz 15 niʃ 30 niŋ 27	nî 23 nîd 48 nîdz 21 nîr 61	nət 596 nəm 28 nən 20 nəl 32	nêr 46 nêrh 16
l 4,027 63	See page 80	lat 11 lak 16 last 86 land 36	lɑr 18 lɑrj 69	let 121 lek 73 lekt 29 left 48 les 166 lej 13 lem 21 lent 29	lê 154 lêt 70 lêd 16	li 1201 lib 30 lit 152 lik 76 liv 71 livd 11 lis 18 list 43 liʃ 16 lij 26 lim 35 liŋ 28	lî 22 lîd 27 lîf 11 lîv 71 lîvz 11 lîs 17 lîst 22	lət 18	lə 47 ləs 35 ləst 28 ləz 16 ləŋ 147
r 3,314 53		rap 15 raſ 32		rep 38 red 79 rek 69 rekt 41 reg 19 ref 22 rev 20 res 27 rest 34 rez 12 rej 12 ren 15	rê 99 rêt 32 rêd 16 rês 11 rêz 11 rênj 35 rêl 39	ri 1625 rit 22 rid 17 riz 26 riç 12 rij 12 riŋ 14	rî 193 rîd 43 rîç 24 rîçt 13 rîn 13 rîr 13		rəŋ 32

ʊ		ə		o		u		ū		ȧ		e̓		aɪ		ù	
nʊf	44	nə	27	no	478			nūn	37	nȧt	64			naɪ	210	nù	182
nʊħ	61	nəns	22	not	28					nȧn	16			naɪns	22	nùz	33
nʊm	58	nəl	63	noz	32									naɪnst	20		
nʊn	17	nər	27	non	45												
lʊv	43	lə	15	lo	60	luk	56	lūz	11	lȧ	39	le̓	25	laɪd	11	lù	31
lʊrn*	15	lər	73	lon	50	lukt	56			lȧt	61					lùt	20
lʊrnd*	16									lȧk	133						
										lȧf	91						
										lȧz	26						
										lȧn	53						
										lȧnz	27						
rʊb	12	rə	75	ro	44			rūm	24	rȧ	30			raɪnd	39		
rʊʃ	11	rəl	25	rod	37			rūl	13	rȧt	143						
rʊn	31			rodz	21					rȧts	11						
				roz	18					rȧd	14						
										rȧvd	15						
										rȧz	14						

	n, l	a	ɑ	e	ē	i	ī	ɵ	ɛ
w 5,553 51		wag 11 war* 22		werl 15 west 26 went 50 wel 122 welh 11	wê 211 wêt 35 wêst 15 wêz 30 wêj 11	wit 21 wirl 841 wiz 69 wiš 30 wim 48 win 50 wil 470	wī 537 wīk 42 wīks 16	wɵz 850 wɵç 18	wê wênt wênts wêr 2 wêrd wêrm
y 2,130 21			yardz 16	yet 68 yes 57			yīr 60 yīrz 93	yɵnd 19	
hw 1,319 9	.	hwar*125		hwerl 31 hwen 246		hwiç 454	hwīt 38	hwɵt 277	
h 5,051 48		hap 69 haps 26 hab 13 had 414 haf 63 hav 658 haz 394 han 21 hand 57 handz 32	har 15 hart 25 hard 31	hed 56 hev 45 hens 12 help 29 held 33 helh 12 her 25	hêt 11	hi 14 his 26 hiz 517 him 285	hī 696 hīr 147	hɵs 16	hêrs

ʊ	ə	o	u	û	ȧ	ė	aɪ	ù
wun 412	wərd 47	wont 17	wu 57	wûnd 11	wȧd 14			
wuns 59			wud 281		wȧf 12			
wur* 328					wȧz 26			
wurd* 19					wȧld 11			
wurdz* 18					wȧr 14			
wurk* 124								
wurks* 13								
wurh* 23								
wurs* 11								
wurld* 106								
wurldz* 11								
yʊŋ 43	yən 67		yu 268	yû 862				
	yənz 38		yut 16	yûs 48				
	yər 21		yur 37	yûz 54				
			yurz 19	yûzd 45				
				yûn 13				
				yûr 230				
				yûrz 56				
					hwȧ 51			
					hwȧt 17			
					hwȧl 80			
hʊn 26	hər 11	ho 11	hud 18	hû 252	hȧ 100		haɪ 152	hù 35
hʊr* 233		hop 41		hûz 42	hȧnd 24		haɪs 70	
hʊrd* 31		hom 69		hûm 28			haɪz 23	
		hol 61						
		hold 51						

	n, l	a	ɑ	e	ê	i	ɪ	ɵ	ð
owel	n 343	a 686	ɑ 11	e 110	ê 464	i 3217	ɪ 186	ɵ 155	ð 61
	nt 119	ap 24	ɑr 642	et 32	êt 97	it 1416	ɪt 23	ɵp 88	ðʊ 16
45,371	nd 44	ab 34	ɑrt 19	ets 12	êd 19	its 293	ɪv 27	ɵb 95	ðf 72
152	nz 20	at 612	ɑrm 22	ed 907	êj 21	id 86	ɪst 13	ɵt 67	ðl 679
	l 264	ad 177		ek 99	êr 20	ik 101	ɪz 56	ɵk 12	ðr 602
	ld 28	ak 104		eks 295		if 276	ɪç 63	ɵg 16	
	lz 30	akt 36		egz 104		iv 14	ɪrz 11	ɵf 96	
		akts 11		ef 30		is 181		ɵv 4001	
		ag 12		ev 308		ist 48		ɵn 816	
		af 154		eĥ 17		ists 21		ɵl 35	
		av 34		es 94		iz 1286			
		as 21		est 186		izm 30			
		ask 37		ests 11		iʃ 84			
		askt 36		ez 529		iʃt 19			
		az 783		ej 44		ij 141			
		aj 29		em 86		im 141			
		am 126		en 675		in 3284			
		an 462		ent 162		iŋ 2353			
		and 3280		ents 16		iŋz 53			
		aŋ 17		end 43		il 25			
		al 23		ens 106					
		ar* 23		el 63					
				els 25					
				elz 27					
				er 18					
	848	6,721	694	3,999	621	13,069	379	5,381	1,439
	7	22	4	25	5	20	7	10	5
26,276	1,860	13,453	1,560	12,076	6,126	28,388	6,507	9,919	4,277
1,369	22	120	28	204	99	179	101	65	51

$$\frac{7,310}{1} = t͡ʃ$$

$$\frac{33,586}{1,370} \quad Total$$

ʊ	ə	o	u	û	á	ǝ̇	ʌɪ	ü
ʊp 333	ə 3167	o 707	u 127		á 1259	ǝ̇l 20	aɪt 332	
ʊt 22	əpt 15	od 19	ud 11		ád 14		aɪr 378	
ʊkts 21	ət 25	oz 24	ur 52		áv 20		aɪrz 34	
ʊrf 258	əd 35	on 276			áz 61			
ʊs 282	ək 49	old 84			ázd 37			
ʊm 25	əz 18				ám 30			
ʊn 466	ən 386				ál 22			
ʊl 16	ənt 21							
ʊr* 53	ənd 26							
ʊrh* 13	əns 41							
	ənz 104							
	əl 570							
	əlz 36							
	ər 2084							
	ərt 21							
	ərd 124							
	ərz 379							
	ərn 132							
1,489 / 10	7,233 / 18	1,110 / 5	190 / 3		1,443 / 7	20 / 1	744 / 3	
7,773 / 119	12,350 / 90	5,418 / 77	2,393 / 31	5,676 / 36	5,258 / 84	221 / 10	2,048 / 28	973 / 25

TABLE 12   SUMMARY OF TABLE 11

Initial sound	Occurrences	Items	Initial sound	Occurrences	Items
pl	460	16	spl	11	1
pr	1,061	24	spr	15	1
p	3,242	59	sp	280	13
bl	111	5	str	261	12
br	147	8	st	617	19
b	5,121	51	skr	18	1
tr	859	28	skw	18	1
tw	104	3	sk	36	2
t	8,123	77	sm	54	1
dr	191	8	sl	13	1
dw	12	1	sw	18	1
d	3,657	54	s	5,188	90
kl	210	11	z	393	14
kr	175	10	ʃ	2,008	21
kw	281	13	ʒ	47	2
k	3,724	60	ç	600	19
gl	33	2	j	659	21
gr	335	10	m	5,514	74
g	1,461	36	n	3,527	51
fl	69	4	l	4,027	63
fr	618	8	r	3,314	53
f	4,048	71	w	5,553	51
v	1,364	38	y	2,130	21
ħr	184	3	hw	1,319	9
ħ	554	11	h	5,051	48
đ	4,090	16	*Consonant*	*80,905*	*1,217*

Initial sound	Occurrences	Items
n	526	4
l	322	3
n, l	*848*	*7*
a	6,721	22
ɑ	694	4
e	3,999	25
ê	621	5
i	13,069	20
ɪ	379	7
ɵ	5,381	10
ɵ̂	1,430	5
ʊ	1,489	10
ə	7,233	18
o	1,110	5
u	190	3
û		
Vowel	*42,316*	*134*
ȧ	1,443	7
ɵ̇	20	1
ɑɪ	744	3
Difthong	*2,207*	*11*
d͡ʒɪ	7,310	1
Consonant	*80,905*	*1,217*
n, l	*848*	*7*
Vowel	*42,316*	*134*
Difthong	*2,207*	*11*
Total	133,586	1,370

TABLE 13   1370 COMMONEST SILLABLES IN REVI

	n, l	a	ɑ	e	ê	i	ɪ	ə	ɛ
mp $\frac{12}{1}$									
lp $\frac{29}{1}$				help 29					
p $\frac{1,072}{23}$		ap 24 kap 66 çap 14 rap 15 hap 69		step 14 sep 32 rep 38	ʃêp 12	ʃip 77 skrip 18 kwip 15	dɪp 19 kɪp 47 çɪp 19	əp 88 pəp 18 kəp 21 prəp 66	
b $\frac{532}{12}$		ab 34 tab 33 hab 13				lib 30 trib 17		əb 95 jəb 13 prəb 45	
mpt $\frac{18}{1}$				tempt 18					
pt $\frac{98}{4}$				kept 23 sept 41					
skt $\frac{36}{1}$		askt 36							

FONETIC ORDER — RIMING DICTIONARY ORDER

ʊ	ə	o	u	û	ȧ	ė	aɪ	u̇
sump 12								
ʊp 333 kʊp 12		hop 41			tȧp 14			
pʊb 83 sʊb 120 rʊb 12 trʊb 37								
	əpt 15			stûpt 19				

	n, l	a	ɑ	e	ē	i	ɪ	θ	ô
kt $\frac{471}{14}$		akt 36 fakt 58 trakt 28		pekt 35 spekt 35 tekt 11 fekt 70 jekt 66 lekt 29 rekt 41		strikt 12			
ft $\frac{48}{1}$				left 48					
kst $\frac{44}{1}$				nekst 44					
nst $\frac{93}{2}$				genst 73					
rst $\frac{158}{2}$									
st $\frac{1,356}{32}$		past 47 fast 16 vast 13 last 86 trast 11		est 186 best 52 test 20 gest 11 vest 28 jest 33 nest 11 rest 34 prest 27 west 26 kwest 17	plēst 14 wēst 15	ist 48 sist 19 list 43	ɪst 13 lɪst 22 krɪst 15	kəst 26	lôst

u	ə	o	u	ū	ȧ	ė	aı	u̇
dukt 15 strukt 19			lukt 16					
							nainst 20	
furst* 131		forst 27						
just 100 must 165 trust 31		post 17 most 155						dust 27

	n, l	a	ɑ	e	ê	i	ɪ	ɵ	ɵ̄
ʃt $\frac{19}{1}$						iʃt 19			
çt $\frac{13}{1}$							riçt 13		
nt $\frac{1,456}{25}$		kant 23		ent 162 spent 12 tent 38 dent 82 vent 28 sent 120 zent 28 jent 13 ment 402 nent 20 lent 29 went 50 kwent 14	pênt 19				wɵ̂nt 71
lt $\frac{79}{3}$				felt 16			bilt 26		
rt $\frac{377}{11}$			art 19 part 123 start 22 hart 25						sɵ̄rt 21 ʃɵ̄rt 21

ʋ	ə	o	u	û	á	ė	ɑɪ	ù
frunt 51	ənt 21 tənt 40 stənt 18	dont 67 wont 17				pėnt 51	kɑɪnt 37 mɑɪnt 43	
zʋlt 37								
vʋrt° 12	ərt 21 ʃərt 16	port 77 kort 20						

	n, l	a	ɑ	e	ē	i	ɪ	θ	ᵾ
t $\frac{8,841}{94}$	nt 119	at 612 pat 20 bat 58 kat 14 ḍat 1346 sat 50 mat 90 lat 11 flat 13		et 32 bet 38 ket 21 get 127 set 86 met 25 net 16 let 121 yet 68	êt 97 têt 20 stêt 89 dêt 23 kêt 33 gêt 13 mêt 16 nêt 21 lêt 70 rêt 32 trêt 12 strêt 28 grêt 181 wêt 35 hêt 11	it 1416 bit 20 fit 27 vit 13 sit 104 mit 124 nit 30 lit 152 rit 22 prit 27 krit 19 wit 21 kwit 12	ɪt 23 bɪt 12 fɪt 44 sɪt 19 mɪt 63 plɪt 41 trɪt 14 strɪt 21 krɪt 14 swɪt 18 hwɪt 38	θt 67 gθt 55 nθt 596 lθt 18 hwθt 277	ɵt 1 bɵt 1 tɵt 1 kɵt 1 hɵt 6 brɵt 3
lvd $\frac{15}{1}$								vθlvd 15	
vd $\frac{102}{6}$					sêvd 17	livd 11	sɪvd 30		
zd $\frac{145}{5}$							plɪzd 16		
njd $\frac{15}{1}$					çênjd 15				
rjd $\frac{11}{1}$			çɑrjd 11						

ʊ	ə	o	u	û	ȧ	ė	aɪ	ü
ʊt 22 bʊt 517 kʊt 23	ət 25	vot 25 not 28	put 73 ʃut 19 yut 16		spȧt 12 fȧt 62 sȧt 32 mȧt 85 nȧt 64 lȧt 61 rȧt 143 ʃrȧt 12 kwȧt 28 hwȧt 17		aɪt 332 baɪt 153 daɪt 26	tüt 19 süt 21 lüt 20
				mûvd 18 prûvd 11	rȧvd 15			
		pozd 28 klozd 19		yûzd 45	ȧzd 37			

	n, l	a	ɑ	e	ê	i	ɪ	ɵ	ə
jd $\frac{11}{1}$					gêjd 11				
rmd $\frac{20}{1}$									fərmd 20
md $\frac{26}{1}$							sɪmd 26		
rnd $\frac{57}{2}$									
nd $\frac{4,230}{28}$		and 3280 stand 106 mand 53 land 36 hand 57		end 43 pend 20 tend 46 fend 24 send 40 mend 18 frend 23	tênd 31 gênd 11			yɵnd 19	
rld $\frac{106}{1}$									
ld $\frac{409}{13}$				held 33		bild 47 fild 12	fɪld 23		kəld 34

ʊ	ə	o	u	û	a̓	e̓	ɑɪ	u̇
turnd* 41 lurnd* 16								
fund 11	ənd 26 zənd 27			wûnd 11	kánd 53 fánd 60 mánd 48 hánd 24		paind 24 faind 64 saind 11 raind 39 graind 25	
wurld*106								
		old 84 told 34 kold 18 gold 15 sold 15 hold 51			çáld 32 wáld 11			

	n, l	a	ɑ	e	ê	i	ɪ	Θ	ə̄
rd 593/20		pard* 25 klard* 12	bard 31 gard 47 hard 31				pɪrd 14		kə̄rd 2 wə̄rd 1
d 4,219/66	nd 44 ld 28	ad 177 bad 24 glad 21 had 414		ed 907 bed 11 sted 27 ded 15 fed 14 sed 161 med 16 bred 14 dred 32 red 79 kred 22 hed 56	êd 19 pêd 18 vêd 12 mêd 179 lêd 16 rêd 16 trêd 15 frêd 11	id 86 did 134 sid 58 mid 21 nid 13 rid 17	spɪd 12 dɪd 25 sɪd 51 nɪd 48 lɪd 27 rɪd 43	bɵd 67 mɵd 38 prɵd 24	brə̄d
sk 53/2		ask 37 task 16							
ŋk 150/4		baŋk 19 haŋk 24				ħiŋk 93 driŋk 14			
lk 20/1						milk 20			
rk 142/2			mark 18						

ʊ	ə	o	u	ū	á	ė	aɪ	u̇
hʊrd* 22 wʊrd* 19 hʊrd* 31	ərd 124 bərd 16 tərd 29 dərd 27 wərd 47	bord 19	çurd 19		tárd 11 kwárd 23			
blʊd 12	əd 35	od 19 rod 37	ud 11 stud 28 kud 147 gud 108 ʃud 119 wud 281 hud 18	fūd 53 klūd 23	ád 14 dád 11 fád 37 vád 34 sád 105 plád 23 rád 14 wád 14		laɪd 11 kraɪd 15	tu̇d 24
wʊrk*124								

	n, l	a	ɑ	e	ê	i	ɪ	ɵ	ð
k $\frac{2,193}{50}$		ak 104 pak 18 bak 87 tak 32 fak 80 sak 21 lak 16 blak 18 prak 44 trak 14		ek 99 spek 20 dek 17 fek 21 sek 56 çek 21 jek 21 nek 15 lek 73 rek 69	têk 171 mêk 141 brêk 22	ik 101 pik 34 tik 68 dik 13 vik 32 sik 13 lik 76 trik 26 kwik 18	spɪk 31 sɪk 17 wɪk 42	ɵk 12 dɵk 22 mɵk 12 klɵk 23	tðk 2
g $\frac{250}{12}$		ag 12 mag 20 wag 11		beg 11 reg 19		big 55 fig 29 sig 28		ɵg 16 prɵg 15	
lf $\frac{166}{1}$				self 166					
f $\frac{1,126}{22}$		af 154 staf 12 graf 11 haf 63		ef 30 def 16 ref 22	sêf 33	if 276 tif 11 dif 63 fif 28 nif 15	çɪf 20 lɪf 11	ɵf 96 prɵf 30	ðf 7
lv $\frac{13}{1}$				twelv 13					
rv $\frac{34}{2}$									

ʋ	ə	o	u	û	a̍	ɞ̇	aı	u̇
dʋk 22 sʋk 47 strʋk 48	ək 49	spok 12	buk 18 tuk 40 luk 56		lák 133 strák 25			
sʋg 23 strʋg 11								
sʋf 16 nʋf 44					láf 91 wáf 12			
sʋrv* 14 zʋrv* 20								

	n, l	a	ɑ	e	ê	i	ɪ	ə	ə̂
v 6,268 ——— 31		av 34 trav 20 hav 658		ev 308 dev 13 sev 64 nev 110 rev 20 hev 45	gêv 36 sêv 49 slêv 13	iv 14 tiv 136 giv 121 siv 68 liv 71 driv 12	ɪv 27 sɪv 17 lɪv 71	əv 4001	
nħ 28 —— 1									
ŋħ 20 —— 1				streŋħ 20					
lħ 23 —— 2				welħ 11 helħ 12					
rħ 76 —— 4									nêrħ
ħ 212 —— 7				eħ 17 meħ 26	fêħ 21				
đ 1,274 ——— 9		gađ 15 rađ 32		geđ 38 weđ 15 hweđ 31		wiđ 841			

u	ə	o	u	û	á	ə̇	ɑɪ	u̇
buv 25 kuv 49 guv 78 luv 43				mûv 38 prûv 21	áv 20 fáv 49 dráv 37			
munħ 28								
urħ* 13 wurħ* 23		forħ 24						
nuħ 61		boħ 45		trûħ 21			saɪħ 21	
uɗ 258 muɗ 31 bruɗ 13								

	n, l	a	ɑ	e	ē	i	ɪ	ө	ә
ps $\frac{79}{3}$		haps 26				ʃips 27			
kts $\frac{59}{4}$		akts 11 fakts 13		jekts 14					
sts $\frac{43}{3}$				ests 11		ists 21		kөsts 11	
nts $\frac{181}{6}$				ents 16 dents 13 sents 30 jents 13 ments 97					wәnts 12
rts $\frac{58}{3}$			pɑrts 17						
ts $\frac{350}{5}$		flats 21		ets 12 gets 13		its 293			
rks $\frac{30}{2}$			mɑrks 17						
ks $\frac{480}{8}$		taks 32		eks 295	tēks 14 mēks 26	siks 49	wɪks 16	prөks 14	

ʊ	ə	o	u	û	á	ė	aı	ù
				trûps 26				
ukts 21								
urts* 12		ports 29						
					ráts 11			
wurks* 13								
			buks 34					

	n, l	a	ɑ	e	ê	i	ɪ	ə	ə̄
nĥs $\frac{35}{1}$									
ns $\frac{589}{17}$		vans 17 trans 51		ens 106 tens 23 dens 42 fens 26 sens 35 ʃens 12 mens 12 hens 12		sins 52			
ls $\frac{25}{1}$				els 25					
rs $\frac{173}{6}$									hêrs
s $\frac{3,897}{64}$		as 21 pas 65 mas 30 klas 22		es 94 spes 13 tes 13 des 21 ves 32 ses 69 zes 11 jes 15 mes 20 nes 264 les 166 res 27 pres 53 dres 28 gres 16 kwes 45 yes 57	bês 11 kês 71 fês 42 plês 81 rês 11	is 181 tis 65 dis 261 vis 55 ɖis 572 sis 70 çis 17 mis 68 lis 18 his 26	pɪs 74 sɪs 11 lɪs 17 krɪs 28	pəs 194 prəs 20 həs 16	lə̄s krə̄s

ʊ	ə	o	u	û	ȧ	ė	aɪ	u̇
munn̄s 35								
wʊns 59	əns 41 təns 36 stəns 21 nəns 22						naɪns 22	
vʊrs* 11 wʊrs* 11		kors 46 fors 59 zors 15						
ʊs 282 tʊs 11 dʊs 48 kʊs 27 ɱus 17 sʊs 19 ʃʊs 27 jʊs 37 mʊs 36	pəs 61	klos 19		yûs 48	fȧs 15 vȧs 17 prȧs 43	vės 19 çės 11	haɪs 70	du̇s 39

	n, l	a	ɑ	e	ê	i	ɪ	ө	ө̄
ndz $\frac{118}{6}$		standz 12 handz 32		frendz 17				bөndz 18	
rldz $\frac{11}{1}$									
ldz $\frac{11}{1}$							fɪldz 11		
rdz $\frac{34}{2}$			yɑrdz 16						
dz $\frac{76}{4}$							nɪdz 21		
gz $\frac{104}{1}$				egz 104					
lvz $\frac{55}{1}$				selvz 55					
vz $\frac{47}{3}$						tivz 23 givz 13	lɪvz 11		

ʊ	ə	o	u	û	á	ė	aı	ú
	zəndz 13						paındz 26	
wʊrldz*11								
wʊrdz*18								
		rodz 21	gudz 17		sádz 17			

	n, l	a	ɑ	e	ẽ	i	ɪ	ɵ	ð
rmz $\frac{17}{1}$									
mz $\frac{118}{4}$					nêmz 14		sɪmz 30		
nz $\frac{548}{12}$		planz 19			plênz 19 trênz 13		mɪnz 46		
ŋz $\frac{135}{2}$						iŋz 53 hiŋz 82			
rlz $\frac{18}{1}$									
lz $\frac{106}{4}$				elz 27 ʃelz 15					
rz $\frac{932}{16}$	⑦	farz* 18 ʧarz* 11	karz 18				ɪrz 11 ytrz 93		

ʊ	ə	o	u	û	á	ə̇	ɑɪ	u̇
tʊrmz* 17								
kʊmz 32					tȧmz 42			
tʊnz 16 gʊnz 23	ənz 104 sənz 14 ʃənz 212 çənz 17 yənz 38				lȧnz 27			
gʊrlz* 18								
	əlz 36				mȧlz 28			
	ərz 379 pərz 13 bərz 53 tərz 105 dərz 33 sərz 27 jərz 36		çurz 26 yurz 19	yûrz 56			ɑɪrz 34	

	n, l	a	ɑ	e	ē	i	ɪ	ɵ	δ
z 6,395 — 61	nz 20 znz 32 lz 30 plz 34 blz 13 klz 15	az 783 haz 394		ez 529 sez 52 rez 12 prez 99	dēz 78 rēz 11 wēz 30	iz 1286 biz 114 tiz 115 diz 22 fiz 13 viz 18 siz 14 miz 18 niz 15 riz 26 priz 14 triz 24 wiz 69 hiz 517	ɪz 56 dɪz 152 sɪz 19 plɪz 17 grɪz 11	wɵz 850	kɵz 145 lɵz 16
ʃ 606 — 17		naʃ 29		peʃ 11 speʃ 35 seʃ 14 preʃ 30 freʃ 21		iʃ 84 biʃ 16 tiʃ 16 diʃ 81 fiʃ 98 ziʃ 57 miʃ 27 niʃ 30 liʃ 16 wiʃ 30			
ʒ 73 — 3				meʒ 17 pleʒ 17		viʒ 39			
nç 12 — 1				trenç 12					
rç 14 — 1									

ʊ	ə	o		u	û		ȧ		ė		aɪ		ü	
luz 69	əz 18	oz	24		lûz	11	áz	61	béz	29	haɪz	23	nüz	33
		poz	35		yûz	54	táz	15						
		goz	13		hûz	42	váz	13						
		đoz	104				sáz	26						
		noz	32				láz	26						
		kloz	12				pláz	20						
		roz	18				ráz	14						
							práz	14						
							wáz	26						
uʃ 11														
urç* 14														

	n, l	a	ɑ	e	ê	i	ɪ	ə	ə̄
ç 936 13		paç 12 naç 21				siç 41 riç 12 hwiç 454	ɪç 63 spɪç 13 tɪç 19 rɪç 24	wəç 18	
nj 92 3					çênj 29 rênj 35 strênj 28				
rj 108 2			çɑrj 39 lɑrj 69						
j 405 15		aj 29		ej 44 lej 13 rej 12	êj 21 pêj 13 stêj 12 wêj 11	ij 141 tij 20 vij 17 lij 26 rij 12 brij 11			
zm 30 1						izm 30			
rm 124 5			ɑrm 22 fɑrm 35						fêrm 3 wêrm I
m 3,388 41		am 126 dam 15 kam 19 fam 28 sam 13 gram 18		em 86 tem 52 dem 34 ɟem 262 mem 80 lem 21	kêm 82 sêm 67 nêm 48 klêm 14	im 141 sim 65 lim 35 wim 48 him 285	sɪm 20 trɪm 14 krɪm 12	bəm 34 kəm 225 nəm 28 prəm 22 frəm 433	

υ	ə	o	u	û	á	ə̇	ɑɪ	ů
tuç 20 suç 132 muç 107								
uj 23								
urm* 18								
m 25 um 270 um 277 um 58	təm 14 dəm 24	hom 69		rûm 24 hûm 28	ám 30 tám 22			sùm 20

	n, l	a	ɑ	e	ē	i	ī	ɵ	ə̄
rn 291 / 8									bə̄rn 1 kə̄rn 1. mə̄rn 4
n 13,102 / 102	See page116	an 462 pan 12 ban 12 kan 291 gan 42 fan 21 van 27 ďan 184 man 218 nan 20 plan 25 han 21		en 675 pen 55 ten 87 den 21 gen 62 fen 27 ven 31 ďen 115 sen 99 zen 12 jen 111 men 382 splen 11 ren 15 dren 36 twen 31 hwen 246	pēn 19 tēn 43 dēn 24 mēn 59 plēn 45 trēn 37	in 3284 pin 30 bin 329 tin 122 din 30 gin 38 fin 20 sin 28 jin 21 min 83 prin 20 win 50	tīn 27 šīn 27 sīn 48 mīn 34 klīn 18 rīn 13 twīn 60	ɵn 816 spɵn 45 kɵn 556 mɵn 13 nɵn 20 kwɵn 13	gə̄n 2 drə̄n 1.
ŋ 2,957 / 17		aŋ 17				iŋ 2353 kiŋ 13 hiŋ 129 siŋ 19 niŋ 27 liŋ 28 bliŋ 16 riŋ 14 spriŋ 15 briŋ 23		kɵŋ 12	lə̄ŋ 14 rə̄ŋ 3 strə̄ŋ 2

ʊ		ə		o		u	ū		ȧ		ė	aɪ		u̇	
burn*	12	ərn	132												
turn*	47														
surn*	14														
lurn*	15														
un	466	ən	386	on	276		sūn	48	fȧn	25		taɪn	19	tu̇n	17
dun	40	bən	12	ston	12		nūn	37	mȧn	16		daɪn	99		
kun	113	tən	13	ʃon	11		yūn	13	nȧn	16		kaɪn	52		
gun	56	gən	27	ʃon	12				lȧn	33					
fun	16	sən	40	non	45										
sun	24	ʃən	923	lon	50										
mun	60	ʒən	24	gron	15										
nun	17	çən	35												
run	31	jən	15												
wun	412	mən	126												
hun	26	yən	67												
muŋ	46														
yuŋ	43														

	n, l	a	ɑ	e	ê	i	ı	ǝ	ð
rl $\frac{32}{1}$									
l $\frac{4,671}{74}$	See page116	al 23 gal 15 val 53 ʃal 120		el 63 pel 12 tel 100 del 11 fel 35 vel 27 sel 43 ʃel 15 wel 122 dwel 12	têl 21 fêl 32 vêl 21 sêl 21 mêl 13 rêl 39	il 25 bil 82 til 108 stil 58 kil 15 skil 11 fil 14 vil 17 sil 28 çil 39 mil 117 wil 470	stıl 51 dıl 27 fıl 48	ǝl 35 pǝl 27 tǝl 11 dǝl 30 kǝl 20 fǝl 61 vǝl 15 nǝl 32 kwǝl 17	ðl 6 kðl fðl smðl
r $\frac{12,189}{108}$		ar* 23 par 30 par* 19 bar 18 kar 88 ɖar* 335 nar 25 skwar* 18 war* 22 hwar* 125	ar 642 par 107 bar 23 kar 43 gar 19 far 65 mar 31 lar 18 har 15	er 18 per 23 ber 36 ter 30 ker 46 fer 34 ver 146 ʃer 11 çer 28 her 25	êr 20 ɖêr 323 ⑧	spir 26	pır 14 dır 58 fır 21 mır 30 nır 61 klır 34 rır 13 yır 60 hır 147	tǝr 15 kǝr 26 fǝr 80 hǝr 28 jǝr 13 mǝr 33	ðr 6 pðr kðr fðr 11 mðr nðr wðr 2 kwðr

ʊ		ə		o		u		û		ȧ		ė		aɪ		u̇	
gurl*	32																
ul	16	əl	570	kol	34	ful	224	skûl	25	ȧl	22	ėl	20				
kʊl	40	təl	119	sol	58			rûl	13	mȧl	13						
mul	14	kəl	127	ʃol	12					hwȧl	80						
		gəl	14	trol	25												
		vəl	16	hol	61												
		ʃəl	56														
		məl	20														
		nəl	63														
		rəl	25														
		trəl	20														
		kwəl	20														
ur*	53	ər	2084	por	47	ur	52	pûr	24	tȧr	34			aɪr	378	pu̇r	17
pur*	194	pər	235	bor	13	çur	161	tûr	12	fȧr	23			flaɪr	25	tu̇r	11
bur*	11	bər	142	stor	23	yur	37	ʃûr	53	zȧr	23					du̇r	47
tur*	57	tər	575	for	228			yûr	230	wȧr	14					ku̇r	28
stur*	11	dər	290	mor	221					kwȧr	35						
kur*	45	gər	33														
fur*	81	fər	23														
vur*	34	vər	251														
ður*	37	ðər	97														
sur*	178	sər	52														
jur*	15	jər	30														
mur*	30	mər	29														
wur*	328	nər	27														
ɦur*	233	lər	73														
		yər	21														
		hər	11														

	n, l	a	ɑ	e	ê	i	ɪ	ə	ə̂
vowel 35,763 185	n 343 pn 41 dn 16 kn 15 vn 98 zn 59 l 264 pl 218 bl 386 tl 28 dl 20 kl 17 gl 20	a 686	ɑ 11 fɑ 26	e 110 te 16 se 15	ê 464 pê 140 bê 54 tê 160 stê 38 dê 266 kê 89 gê 31 fê 35 vê 49 đê 478 sê 207 zê 40 mê 210 nê 200 lê 154 plê 38 rê 99 trê 54 grê 13 wê 211	i 3217 pi 42 spi 14 bi 621 ti 830 sti 44 di 835 ki 14 fi 58 vi 44 hi 11 đi 13 si 263 zi 19 ʃi 21 ji 40 mi 130 ni 187 li 1201 pli 24 bli 54 ri 1625 pri 130 tri 206 hi 14	ɪ 186 pɪ 238 bɪ 967 tɪ 42 dɪ 63 fɪ 26 hɪ 20 sɪ 200 ʃɪ 188 mɪ 306 nɪ 23 lɪ 22 rɪ 193 prɪ 36 trɪ 12 krɪ 11 grɪ 30 frɪ 50 hrɪ 75 wɪ 537 hɪ 696	ə 155 pə 22 kə 166	ə̂ 6 sə̂ 4 lə̂ 4 drə 1 wə̂ 5
	1,525 13	686 1	37 2	141 3	3,030 21	9,657 25	3,921 21	343 3	22 5
126,276 1,369	1,860 22	13,453 120	1,560 28	12,076 204	6,126 99	28,388 179	6,507 101	9,919 65	4,27? 51
$\frac{7,310}{1}$ = ɱɪ									
$\frac{133,586}{1,370}$ *Total*									

ʊ		ə		o		u		û		ȧ		ə̇		ɑɪ		ù	
sʊ	120	ə	3167	o	707	u	127	tû	3152	ȧ	1250	bə̇	15	pɑɪ	77	bù	49
		pə	72	po	153	tu	305	dû	239	bȧ	644	jə̇	14	hɑɪ	40	tù	28
		tə	63	to	179	ʒu	23	jû	16	tȧ	24	lə̇	25	nɑɪ	210	dù	51
		də	24	do	27	çu	47	blû	11	dȧ	22	plə̇	22	hɑɪ	152	kù	34
		kə	36	ko	42	flu	16	klû	14	fȧ	45	strə̇	15			gù	17
		fə	24	go	179	stru	11	trû	30	vȧ	28					fù	100
		vɛ	12	fo	11	wu	57	hrû/ɔ̃	96	sȧ	48					vù	34
		sə	16	vo	11	yu	268	yû	862	mȧ	341					sù	34
		mə	129	ɗo	60			hû	252	lȧ	39					mù	55
		nə	27	so	446					plȧ	39					nù	182
		lə	15	ʃo	48					flȧ	15					lù	31
		rə	75	mo	116					rȧ	30					hù	35
		trə	14	no	478					prȧ	30						
				lo	60					trȧ	45						
				glo	12					krȧ	14						
				ro	44					hwȧ	51						
				pro	226					hȧ	100						
				bro	17												
				tro	30												
				gro	15												
				hro	13												
				ho	11												
120		3,074		2,885		854		4,672		2,774		91		479		650	
1		13		22		8		9		17		5		4		12	
7,773		12,350		5,418		2,393		5,676		5,258		221		2,048		973	
119		90		77		31		36		84		10		28		25	

TABLE 14. SUMMARY OF TABLE 13

Final sound	Occurrences	Items	Final sound	Occurrences	Items
mp	12	1	sk	53	2
lp	29	1	ŋk	150	4
p	1,072	23	lk	20	1
b	532	12	rk	142	2
mpt	18	1	k	2,193	50
pt	98	4	g	250	12
skt	36	1	lf	166	1
kt	471	14	f	1,126	22
ft	48	1	lv	13	1
kst	44	1	rv	34	2
nst	93	2	v	6,268	31
rst	158	2	nħ	28	1
st	1,356	32	ŋħ	20	1
ʃt	19	1	lħ	23	2
çt	13	1	rħ	76	4
nt	1,456	25	ħ	212	7
lt	79	3	ʤ	1,274	9
rt	377	11	ps	79	3
t	8,841	94	kts	59	4
lvd	15	1	sts	43	3
vd	102	6	nts	181	6
zd	145	5	rts	58	3
njd	15	1	ts	350	5
rjd	11	1	rks	30	2
jd	11	1	ks	480	8
rmd	20	1	nħs	35	1
md	26	1	ns	589	17
rnd	57	2	ls	25	1
nd	4,230	28	rs	173	6
rld	106	1	s	3,897	64
ld	409	13			
rd	593	20			
d	4,219	66			

Final sound	Occurrences	Items	Final sound	Occurrences	Items
ndz	118	6	n	572	6
rldz	11	1	l	953	7
ldz	11	1	*n, l*	1,525	13
rdz-	34	2			
dz	76	4	a	686	1
gz	104	1	ɑ	37	2
lvz	55	1	e	141	3
vz	47	3	ê	3,030	21
rmz	17	1	i	9,657	25
mz	118	4	ɪ	3,921	21
nz	548	12	ɵ	343	3
ŋz	135	2	ɵ̂	224	5
rlz	18	1	ʊ	120	1
lz	106	4	ə	3,674	13
rz	932	16	o	2,885	22
z	6,395	61	u	854	8
ʃ	606	17	û	4,672	9
ʒ	73	3	*Vowel*	30,244	*134*
nç	12	1			
rç	14	1	á	2,774	17
ç	936	13	ɵ̇	91	5
nj	92	3	ɑɪ	479	4
rj	108	2	ü	650	12
j	405	15	*Difthong*	3,994	*38*
zm	30	1			
rm	124	5			
m	3,388	41			
rn	291	8	h̃	7,310	1
n	13,102	102	*Consonant*	90,513	*1,184*
ŋ	2,957	17	*n, l*	1,525	*13*
rl	32	1	*Vowel*	30,244	*134*
l	4,671	74	*Difthong*	3,994	*38*
r	12,189	108	Total	133,586	1,370
Consonant	90,513	*1,184*			

Part 4 — Sounds

Part 4

Sounds

Relativ frequency of the simple sounds of English

Any statement of the relativ frequency of the simple sounds of English must, to hav definit, general, or comparativ value, make unmistakably clear the fonetic basis on which it rests, with respect to

1) The number, and nature, of the sounds distinguisht,
2) The authority for pronunciation adopted, and
3) The particular treatment accorded the words *the* and *a*, and the so-cald "neutral vowel," ə.

The Revised Scientific Alfabet used as Key 1 of the Standard Dictionary, is a medium precision, 48 sound, fonetic alfabet for English, based on the American Filological Association alfabet of 1876. The basis and detaild structure of this alfabet ar explaind with admirable simplicity and clearness in the *Spelling and Pronunciation* preface of the unabridged Standard Dictionary (editions since 1911) which should be consulted by all interested in this aspect of the problem.

As the Standard Dictionary was adopted, for reasons previously discust, as the authority for pronunciation for this investigation, the maximum of information was obviously to be secured by performing the primary analisis of sounds on the 48 sound basis of Key 1, making possible any desired treatment or presentation of final results simply by combining the separate unit data thus secured in various forms.

On the 48 sound basis of Key 1, the "neutral vowel" offers no problem, for the simple, definit treatment of the unstrest vowels is perhaps the most distinctiv caracteristic of this alfabet. On any basis, however, the particularly common words *the* and *a* require separate consideration, for each has alternativ correct pronunciations, concurrently used by careful speakers. Thus, (Standard Dictionary): *the*, ₫ī (named or emfatic);

ᶂɪ (unemfatic before a vowel); ᶂə (unemfatic before a consonant).   *a*, ê (unaccented, ə).

To consider 10 % of the occurrences of each of these 2 words as named or emfatic or accented is a maximum assumption so far as I can deduce from observation and the estimates of others.   As the proportion of initial vowels to initial consonants is roughly 1 to 2, the unemfatic 90 % of occurrences of *the* may properly be distributed as 30 % ᶂɪ, and 60 % ᶂə.   This basis is adopted in Table 15 following, which shows, in fonetic order, the total frequency of occurrence of each of the 48 sounds distinguisht by the Standard Dictionary, and the number of different items or places in which each occurd, in the 100,000 words counted and analized.

In Table 15 only, the Revised Scientific Alfabet is used insted of the S S B key alfabet in order to represent the 7 additional vowel and difthong sounds * distinguisht by the former.   See Appendix A for statement of the slight differences between these alfabets.   The 7 additional sounds interpolate redily and obviously in the fonetic order adopted.

As the general purpose of this investigation was not only to introduce into the study of fonetics an important quantitativ element heretofore lacking, but also to provide data of immediate practical value in the teaching of English, and in fonetic writing of English, more particularly fonetic shorthand writing, it is obvious that these data should be organized on a fonetic basis of maximum simplicity, minimum precision, sufficient for these purposes. The large experience of Pitmanic shorthand has demonstrated, I think conclusivly, that 40 sounds (considering ç and j as simple sounds, and counting the 4 vowel difthongs á ǝ́ aı ú) represent the extreme minimum with which strictly fonetic writing of English may be achievd. By *strictly* I refer to no particular degree of precision but to strict adherence to the principle: one sign for each sound, one sound for each sign.

The S S B key alfabet here adopted differs from the minimum 40 sound basis of Pitmanic shorthand practis

* See page 126 following.

TABLE 15 RELATIV FREQUENCY OF THE SIMPLE SOUNDS OF ENGLISH ON THE 48 SOUND BASIS OF THE REVISED SCIENTIFIC ALFABET. ARRANGED IN FONETIC ORDER

Sound	%	Occur-rences	Items	Sound	%	Occur-rences	Items
p	2 .04	7,620	1,960	a	3 .50	13,060	1,445
b	1 .81	6,750	1,175	ā	.23	881	141
t	7 .13	26,550	4,495	ɐ	.22	820	120
d	4 .31	16,050	3,100	ɑ	.02	95	50
k	2 .71	10,100	2,700	ā	.47	1,740	306
g	.74	2,760	635	e	3 .44	12,800	3,170
f	1 .84	6,860	1,135	ē	1 .84	6,863	1,317
v	2 .28	8,490	910	ı	4 .42	16,493	4,151
ſh	.37	1,380	210	i	4 .11	15,301	1,826
th	3 .43	12,780	116	ī	2 .12	7,921	876
s	4 .55	16,970	4,155	ɵ	2 .81	10,450	1,050
z	2 .97	11,070	2,050	ō	1 .26	4,701	491
ſh	.82	3,052	846	ʊ	1 .70	6,360	1,115
ʒ	.05	170	51	ū	.63	2,350	440
ɗh	.52	1,930	350	ə	4 .63	17,264	2,937
j	.44	1,630	495	o	.33	1,230	415
m	2 .78	10,360	1,840	ō	1 .30	4,859	763
n	7 .24	26,980	4,375	u	.69	2,570	450
ŋ	.96	3,590	1,035	ū	1 .60	5,961	311
l	3 .74	13,930	3,290	*Vowel*	35 .32	131,719	21,374
r	6 .88	25,620	5,420				
w	2 .08	7,760	555	ai	1 .59	5,923	857
y	.60	2,230	245	oi	.09	345	105
h	1 .81	6,755	485	au	.59	2,215	235
Consonant	62 .10	231,387	41,628	iu	.02	60	35
Vowel	35 .32	131,719	21,374	iū	.29	1,080	290
Difthong	2 .58	9,623	1,522	*Difthong*	2 .58	9,623	1,522
Total	100 .00	372,729	64,524				

the 7,310 assumed: dī 10%; dı 30%; də 60%
a 2,120   "   ê 10%;   ə 90%

only in its recognition of the "neutral vowel" and its treatment of the word *the*. It differs from the 48 sound basis of the Revised Scientific Alfabet only in its treatment of the word *the* and in ignoring the 7 finest distinctions of the latter. These ar:

Between the ü of f*eu*d   and of f*u*tility

   " ɑ *a*rt   " *a*rtistic

The vowel of f*a*st, distinguisht as a hibrid, neither the a of f*a*t nor the ɑ of f*a*r.

Between the o of n*o*te and of *o*bey

   " i b*i*t   " hab*i*t

   " a b*a*t   " b*a*re

   " ʊ b*u*t   " b*u*rr

The first 5 of these combinations ar sufficiently obvious. Of the 6th I may say that my personal judgment, confirmed by those advisers in whom I hav most confidence, is that the vowel (Revised Scientific Alfabet ā) of b*a*re resembles more closely the *e* of b*e*t than the *a* of b*a*t, and might therefore be more appropriately combined with the former. Of the 7th my personal judgment, confirmed by the International Fonetic Association alfabet, as nearly final authority as the vext field of fonetics affords, is that the vowel (Revised Scientific Alfabet ụ̄) of b*u*rr differs slightly in quality as wel as quantity from the ʊ of b*u*t, but is identical except for *stress* with the "neutral vowel" ə of memb*e*r, and might therefore be more appropriately combined with the latter. On both these points however it has seemed more useful to adhere strictly to the basis of classification implied by the Revised Scientific Alfabet, as used in the Standard Dictionary, making the combinations tabulated above. Those interested in separate consideration of these 2 sound classifications wil find sillables containing these 2 sounds (the a of b*a*re and the ʊ of b*u*rr) distinguisht by a * thruout the sillable tables, while the frequency of the sounds alone appears, of course, in Table 15.

One reason for separate treatment of the commonest word, *the*, is suggested by the discussion of its alternativ correct pronunciations (page 123 preceding.) Another is that shorthand practis almost invariably, and properly,

treats the word *the* with a separate sign; so that for pur-
poses of shorthand construction, data not subject to the
markt influence of this commonest word are more accu-
rately significant. A third reason is the markt economy
of effort of a single sign, as compared with 2 fonetic or
3 *a b c* letters, for the most frequent word of English,
which occurs more often than do over half of the simple
sounds, in a fonetic print notation. Both on theoretic
and practical grounds a separate logotipe for the word
the seems a happy solution.

This fonetic basis of the S S B key alfabet, which
involvs the minimum of assumption (with respect to *the*, *a*,
and ə) wil be designated for explicit distinction the 41 + 1
sound basis (the Pitmanic 40 sounds plus ə, and plus ʧ).

Table 16 following givs, in fonetic order, the relativ
frequency of the separate simple sounds of English speech,
showing the per cent which each is of the total, the total
number of its occurrences in 100,000 words, and the number
of different places in which each occurrd; on the 41 + 1
sound basis above described.

In Table 17 following, the left hand colums show the
relativ frequency of English speech sounds, on the 41 + 1
sound basis, arranged in order of frequency of their total
occurrence. The colum heded Occurrences ÷ Items givs
an incidental mesure (inverse) of what might be cald the
versatility of each sound — whether it occurs chiefly in a
few words of great importance, as with ʧ, or in many
words of relativly infrequent occurrence, as with ŋ or j.
The right hand colums show in detail the frequency of
occurrence of each sound initially, medially, finally, or
alone in sillables; and initially, medially, finally, or alone
in words. These latter analitic data ar of indispensable
importance to any study of language structure as a
scientific basis for shorthand construction, and wil be
significant in much more general linguistic study.

The arrangement in order of frequency shows that, of
the 42 fonetic elements distinguisht:

The first 4 sounds make up over 25 % of the total
 "   9   "   50 %   "
 "   19   "   75 %   "

TABLE 16. RELATIV FREQUENCY OF THE SIMPLE SOUNDS OF ENGLISH ON THE 41 + 1 SOUND BASIS OF THE S S B KEY ALFABET. ARRANGED IN FONETIC ORDER

Sound	%	Occurrences	Items	Sound	%	Occurrences	Items
p	2.08	7,620	1,960	a	4.04	14,761	1,706
b	1.84	6,750	1,175	ɑ	.50	1,835	356
t	7.27	26,550	4,495	e	3.50	12,800	3,170
d	4.39	16,050	3,100	ê	1.88	6,863	1,317
k	2.77	10,100	2,700	i	8.12	29,601	5,976
g	.76	2,760	635	ɪ	1.96	7,190	875
f	1.88	6,860	1,135	Ɵ	2.86	10,450	1,050
v	2.32	8,490	910	Ɵ̃	1.29	4,701	491
ħ	.38	1,380	210	u	2.38	8,710	1,555
ɟ	1.50	5,470	115	ə	3.52	12,878	2,936
s	4.64	16,970	4,155	o	1.66	6,089	1,178
z	3.03	11,070	2,050	u	.70	2,570	450
ʃ	.84	3,052	846	û	1.63	5,961	311
ʒ	.05	170	51	*Vowel*	*34.04*	*124,409*	*21,371*
ç	.53	1,930	350				
j	.45	1,630	495	á	1.61	5,923	857
m	2.83	10,360	1,840	ə̇	.09	345	105
n	7.38	26,980	4,375	aɪ	.61	2,215	235
ŋ	.98	3,590	1,035	ụ	.31	1,140	325
l	3.82	13,930	3,290	*Difthong*	*2.62*	*9,623*	*1,522*
r	7.02	25,620	5,420				
w	2.12	7,760	555				
y	.61	2,230	245				
h	1.85	6,755	485				
Consonant	*61.34*	*224,077*	*41,627*				
Vowel	*34.04*	*124,409*	*21,371*				
Difthong	*2.62*	*9,623*	*1,522*				
ɟi	2.00	7,310	1				
Total	100.00	365,419	64,521				

a 2,120 assumed: ê 10% ə 90%

To facilitate comparativ study of the more fonetic of existing shorthand sistems, and other minimum precision fonetic notation schemes, the data on relativ frequency of sounds ar reduced to the 40 sound basis and presented, in order of frequency, in Table 18 following. This reduction, with its non-recognition of the "neutral vowel" involvs treating *the* and *a* as occurring only with their formal strest pronunciation, and distributing the occurrences of ə in accord with the most usual treatment of such occurrences in Pitmanic shorthand, as indicated at the bottom of the table.

Fonetists ar to-day agreed as to the definit and constant caracter of the *neutral vowel* or *low unstrest vowel*, ə, which furnisht one of the most perplexing problems of the spelling reformer or shorthand inventor of 2 generations ago; so that a fonetic notation primarily to be red in print which did not include a sign for this sound would be unthinkable for any purpose, however "popular" or general; and experience shows that the average layman has no difficulty in recognizing this sound clearly in a fonetic print. But in the present fonetic innocence of the general public, created and maintaind by the non-fonetic caracter of the present heterogeneous conventional spelling, there is some question whether the average layman could *use* this sound intelligently in writing, in shorthand or otherwise. Table 17 may therefore be regarded as presenting the optimum, and probably feasible, basis of popular fonetic understanding; Table 18 the minimum basis, alredy proved practicable.

TABLE 17. RELATIV FREQUENCY OF ENGLISH SPEECH SOUNDS, ON THE 41 + 1 SOUND BASIS OF THE S S B KEY ALFABET. ARRANGED IN ORDER OF FREQUENCY

Sound	%	Occurrences	Items	Occurrences / Items	Sillabic analisis				Word analisis				Sound
					Initial	Medial	Final	Sillabic	Initial	Medial	Final	Word	
i	8.12	29,601	5,976	4.96	9,943	10,010	6,431	3,217	6,730	18,750	4,121		i
	7.38	26,980	4,375	6.17	3,977	8,460	14,200	343	2,590	15,650	8,740		n
	7.27	26,550	4,495	5.91	9,620	2,410	14,520		5,150	9,630	11,770		t
	7.02	25,620	5,420	4.73	3,720	9,370	12,530		2,255	14,995	8,370		r
	4.64	16,970	4,155	4.08	7,850	2,120	7,000		5,575	6,765	4,630		s
	4.39	16,050	3,100	5.18	4,290	520	11,240		2,760	3,480	9,810		d
a	4.04	14,761	1,706	8.65	6,109	7,945	21	686	6,690	8,071			
	3.82	13,930	3,290	4.23	4,606	3,190	5,870	264	2,090	7,575	4,265	1,908	l
ə	3.52	12,878	2,936	4.31	4,131	5,030	550	3,167	840	10,040	90		
e	3.50	12,800	3,170	4.03	3,895	8,740	55	110	1,700	11,100			
ɵ	3.03	11,070	2,050	5.40	548	300	10,220		15	1,530	9,525		
	2.86	10,450	1,050	9.97	5,265	4,850	180	2	5,120	5,330			z
	2.83	10,360	1,840	5.63	5,830	570	3,960	155	4,020	4,015	2,325		m
	2.77	10,100	2,700	3.74	5,400	1,730	2,970		3,990	4,680	1,430		k
ʌ	2.38	8,710	1,555	5.60	1,550	7,040	120		1,230	7,480			
	2.32	8,490	910	9.33	1,640	350	6,500		540	2,635	5,315		v
	2.12	7,760	555	13.98	5,810	1,950			5,480	2,280			w
	2.08	7,620	1,960	3.89	5,325	885	1,410		3,425	3,640	555		p
	2.00	7,310	1	—				7,310				7,310	ʃ
	1.96	7,190	875	8.22	204	2,990	3,810	186	350	4,030	2,810		i

This page is a portion of a table of English speech–sound frequencies. The data are printed sideways; they are reproduced below in upright form. Each sound's occurrences are tabulated under two groups of four columns (each group summing to the sound's total), followed by the total occurrences, total items, the ratio of occurrences to items, and the per cent.

Column-head symbols (as printed): group 1 — e, o, ü, ɑ; group 2 — θ, u, a, ə.
Row-label symbols (as printed, phonetic): f, h, b, o, ü, ɑ, θ, d, ŋ, s, g, y, ʃ, j, h, ʒ …

#	e	o	ü	ɑ	θ	u	a	ə	Total occurrences	Total items	Occ. ÷ items	Per cent
1	213	1,280	5,155	215	464	2,600	3,600	199	6,863	1,317	5.22	1.88
2		790	2,015	4,055		1,430	130	5,300	6,860	1,135	6.04	1.88
3			240	6,515				6,755	6,755	485	13.93	1.85
4		50	1,900	4,800		620	40	6,090	6,750	1,175	5.74	1.84
5	59	1,200	4,110	720	707	2,260	2,700	422	6,089	1,178	5.17	1.66
6		4,590	1,370	1		4,745	1,215	1	5,961	311	19.15	1.63
7	1,173	1,150	3,390	210	1,259	1,580	2,890	194	5,923	857	6.92	1.61
8		740	720	4,010		1,415	15	4,040	5,470	115	47.60	1.50
9	1	90	3,160	1,450	61	200	3,040	1,400	4,701	491	9.59	1.29
10		2,925	665			3,120	470		3,590	1,035	3.47	.98
11	2	125	2,070	855	2	720	80	2,250	3,052	846	3.61	.84
12		115	1,165	1,480		390	140	2,230	2,760	635	4.34	.76
13		210	2,360		127	745	1,615	83	2,570	450	5.72	.70
14			550	1,680				2,230	2,230	245	9.10	.61
15		375	1,180	660		550	920	745	2,215	235	9.42	.61
16		905	640	385		1,100	60	770	1,930	350	5.52	.53
17	10	13	1,085	727	11	61	1,031	732	1,835	356	5.16	.50
18		415	850	365		725	75	830	1,630	495	3.29	.45
19		340	345	695		480	50	850	1,380	210	6.57	.38
20		260	880			670	470		1,140	325	3.51	.31
21		40	285	20		110	215	20	345	105	3.29	.09
22		5	165			100	2	68	170	51	3.33	.05
Totals	10,676	89,374	175,976	80,303	18,071	125,208	97,218	124,922	365,410	64,521	5.66	100.00

TABLE 18   RELATIV FREQUENCY OF ENGLISH SPEECH SOUNDS
ON THE 40 SOUND BASIS OF STANDARD PITMANIC SHORTHAND.
ARRANGED IN ORDER OF FREQUENCY

Sound	%	Occur-rences	Items	Sound	%	Occur-rences	Items
i	7.94	29,601	5,976	f	1.84	6,860	1,135
n	7.24	26,980	4,375	h	1.81	6,755	485
t	7.13	26,550	4,495	b	1.81	6,750	1,175
r	6.88	25,620	5,420	o	1.63	6,089	1,178
ʊ	5.02	18,750	4,320	û	1.60	5,961	311
s	4.55	16,970	4,155	ȧ	1.59	5,923	857
d	4.31	16,050	3,100	θ̂	1.26	4,701	491
a	4.17	15,601	1,841	ŋ	.96	3,590	1,035
ī	3.89	14,500	876	ʃ	.82	3,052	846
l	3.74	13,930	3,290	g	.74	2,760	635
e	3.44	12,800	3,170	u	.69	2,570	450
ɫ	3.43	12,780	116	y	.60	2,230	245
z	2.97	11,070	2,050	aɪ	.59	2,215	235
θ	2.81	10,450	1,050	ç	.52	1,930	350
m	2.78	10,360	1,840	ɑ	.52	1,925	391
k	2.71	10,100	2,700	j	.44	1,630	495
ê	2.35	8,771	1,317	ħ	.37	1,380	210
v	2.28	8,490	910	u̇	.31	1,140	325
w	2.08	7,760	555	ɵ̇	.09	345	105
p	2.04	7,620	1,960	ʒ	.05	170	51
	81.76	304,753	53,516		18.24	67,976	11,005
					81.76	304,753	53,516
				Total	100.00	372,729	64,521

the   7,310 assumed: ɫ̄
a   2,120   "   ê
                         ⎧ a   840 (initial in words)
ə   10,970   "   ⎨ ʊ 10,040 (medial   "   )
                         ⎩ ɑ   90 (final   "   )

General Summary

The outstanding feature of this study is the degree to which a comparativly small part of the commoner words, sillables, or sounds, of English form, by their frequent repetitions, a large part of our ordinary speech. In general summary, for the 100,000 words investigated:

9 words	ar found to form over	"	} 25% {	of the total words	
12 sillables		"		"	sillables
4 sounds		"		"	sounds
69 words		"		"	words
70 sillables		"	} 50% {	"	sillables
9 sounds		"		"	sounds
732 words		"		"	words
339 sillables		"	} 75% {	"	sillables
19 sounds		"		"	sounds

1027 words occurring over 10 times form 78.6% of the words
1370 sillables   "   form 93.4%   "   sillables
41 + 1 sounds   form   100%   "   sounds

Intensiv study of these commoner words and sillables, and the simple sounds, wil thus suffice to giv an organized and fairly adequate quantitativ conception of the fonetic structure of modern English.

Appendix A *

A Simple Fonetic Key Alfabet for General Use

There is urgent need for a minimum precision fonetic key alfabet of maximum simplicity, for general popular use as distinct from the purposes of the professional fonologist. Such an alfabet wil be of constant and general usefulness — in teaching reading or the pronunciation of English to children or adults; in the teaching of short-hand, which writes by sound, not by spelling; and for all purposes involving accurate expression of English pronunciation in print or longhand, including the literature of spelling reform. The various instruments thus far available for such purposes ar all, in various degrees, unsatisfactory. These ar, chiefly:

The "Webster" notation and similar complex diacritic schemes, obscure, fonetically misleading, and altogether objectionable; long since repudiated by all filologists or fonetists.

The International Fonetic Association alfabet, designed to cover all languages with a maximum of scientific precision, using a basic alfabet of 65 different letters with numerous modifiers which serv to distinguish several hundred different sounds; a valuable tool of the professional fonetician, but for general popular use for English too complex and over-refined, and *tipografically strange*.

The Revised Scientific Alfabet, often referd to as the N E A (National Education Association) alfabet, used as Key 1 of the New Standard Dictionary and its abridgments; based on the 1877 alfabet of the American Filological Association. This is a medium precision alfabet for English, distinguishing 48 sounds; incomparably the best for its purpose ever devised, but stil too complex for the simplest general popular use.

The fonetic key alfabet here presented, used for fonetic key purposes in all publications of the Simplified Spelling Board, is strictly in harmony thruout with the Revised Scientific Alfabet, on which it is based.

(10) * A circular of the Simplified Spelling Board.

Fonetic Key Alfabet

24 Consonants			
Print	Script	Name	As in
p		pî	pin, cup
b		bî	bin, cub
t		tî	ten, bet
d		dî	den, bed
k		kî	come, back
g		gî	gum, bag
f		ef	fan, safe
v		ev	van, save
ħ		eħ	thigh, bath
đ		eđ	thy, bathe
s		es	seal, race
z		ez	zeal, raise
ʃ		eʃ	assure, rush
ʒ		eʒ	azure, rouge
ç		eç	choke, rich
j		ej	joke, ridge
m		em	met, him
n		en	net, thin
ŋ		eŋ	ink, thing
l		lê	laid, deal
r		rê	raid, dear
w		wê	wet, quit
y		yê	yet, you
h		hê	head, who

13 Vowels			
Print	Script	Name	As in
a		at	am, pat, (pair)
ɑ		a	alms, part, ma
e		et	edge, let
ê		ê	age, late, may
i		it	is, sit, army
î		î	ease, seat, me
ө		өt	odd, not
ô		ô	awed, naught
u		ut	up, ton, (turn)
ə		ər	about, utter, nation, china
o		o	open, tone, show
u		ut	full, could
û		û	fool, shoe

4 Difthongs

Print	Script	Name	As in
á		á	aisle, pint, by
ө̇		ө̇	oil, point, boy
ɑı		ɑı	out, power, now
u̇		u̇	pure, few

Supplementary Signs

đı   =

A wordsign or logotipe for the commonest word of English, *the.*

*   ×   *capsign*

Fonetic print capitals ar hevy or bold-face letters, otherwise similar to the small letters.   To capitalize a fonetic longhand word, write the capsign before it.

For most teaching or manuscript purposes the *disjoind* long-hand letters below, similar in form to the print letters, wil be preferable to the script forms, which necessarily differ somewhat from the print, just as common script differs from common print.

p b t d k ǫ   f v ħ ɍ s z ʃ ʒ ç j   m n ŋ l r w y h
a a e ê i ī   ө ô ʋ ə o u û   ȧ ɵ́ ɑ u̇   ⅎi   ×

liŋkən'z getizburg spīç

forskor and sevn yīrz əgo ɑir fɑɍərz brөt forħ өn ɍis kөntinent ə nù nêʃən, kөnsīvd in libərti, and dedi-kêted tû ɍi prөpoziʃən ɍat өl men ɑr krīêted īkwəl.

nɑu wī ɑr engêjd in ə grêt sivil wөr, testiŋ hwerɍər ɍat nêʃən, өr eni nêʃən so kөnsīvd and so dedikêted, kan lөŋ endùr. wī ɑr met өn ə grêt batl-fīld өv ɍat wөr. wī hav kum tû dedikêt ə por-ʃən өv ɍat fīld az ə fánəl restiŋ-plês fөr ɍoz hû hīr gêv ɍêr lávz ɍat ɍat nêʃən mát liv. it iz өltəgeɍər fitiŋ and prөpər ɍat wī ʃud dû ɍis.

but in ə lɑrjər sens, wī kanөt dedikêt — wī kanөt kөnsikrêt — wī kanөt halo — ɍis grɑind. ⅎi brêv men, liviŋ and ded, hû strugld hīr, hav kөn-sikrêted it fɑr əbuv ɑir pūr pɑиər tû ad өr ditrakt. ⅎi wurld wil litl not nөr lөŋ rimembər hwөt wī sê hīr, but it kan nevər fөrget hwөt ɍê did hīr. it iz fөr us, ⅎi liviŋ, raɍər, tû bī dedikêted hīr tû ⅎi unfiniʃt wurk hwiç ɍê hû föt hīr hav ɍus fɑr so nobli advanst. it iz raɍər fөr us tû bī hīr dedikêted tû ⅎi grêt task rimêniŋ bifor us — ɍat frөm ɍīz өnərd ded wī têk inkrīst divoʃən tû ɍat kөz fөr hwiç ɍê gêv ɍi last ful mezur өv divoʃən; ɍat wī hīr háli rizөlv ɍat ɍīz ded ʃal not hav dád in vên; ɍat ɍis nêʃən, undər gөd, ʃal hav ə nù burħ өv frīdəm; and ɍat guvərnment өv ɍi pīpl, bá ɍi pīpl, fөr ɍi pīpl, ʃal not periʃ frөm ɍi urħ.

The linear order and fonetic names of the present alfabet ar based on establisht shorthand practis, for which they ar both logical and convenient.

Brief study wil enable any one to read the selection on the preceding page. An hour's study wil giv any one at all familiar with fonetics a thoro working knowledge of the key, which meets fully the 2 essentials of a strictly fonetic notation: one and only one sound for each sign, and one and only one sign for each sound.

The only differences between this alfabet and the Revised Scientific Alfabet as used in the Standard Dictionary series ar these: all easily masterd in 10 minutes by any one familiar with the latter—

S S B key	a ɑ i u o ù	h ʧ ʃ ç	d ð aɪ ù	ʧɪ	ē ī ə û
Revised Scientific Alfabet	a ɑ ɪ ʊ o iu ā ā i ū ō iū ɐ	ʧh th ʃh ch	ai ei au iu	thī thɪ thə	ē ī ə̇ ū
	1	2	3	4	5

1 Reduction to a minimum precision 41 sound basis from the medium precision 48 sound basis, by ignoring the 7 finest distinctions of the latter—at best negligible, at worst confusing, for practical popular use.

2 Simple single letters in place of the 4 consonant digraf ligatures temporarily adopted by the N E A committee as a concession to visual prejudice.

3 Single letters, each an obvious blend of the 2 fonetic elements, for the 4 vowel difthongs, in place of writing the difthong by its 2 component letters—a gain in clearness and simplicity in harmony with shorthand practis.

4 A logotipe for the commonest word of English, *the*, which has 3 different pronunciations concurrently used by careful speakers; combining logical simplicity with efficiency.

5 Slightly curving the macron over the markt long vowels as a constant reminder not to use the misleading Webster "name-sounds" for these letters.

General use of this key alfabet for all popular fonetic purposes wil conduce to simplicity and clearness, and go far toward clarifying the now sadly deficient popular understanding of the elementary essential fonetic facts of English.

Appendix B

Consonant compounds of English

Altho these tables giv qualitativ rather than quantitativ information as to the fonetic structure of English, they ar particularly suggestiv in connection with the quantitativ data of this investigation.

Tables B1, B3, B5 present respectivly those preceding, sillabic, and following consonant compounds, and consonants, which I hav noted in the course of this study, or at other times, with key words for each. Tho I hav excluded from Table B1 a dozen or more distinctly foren compounds, occurring only in proper names or tecnical terms of foren origin, these tables ar more complete than any that I hav seen, and certainly contain all compounds of anything like common occurrence in English. Entries enclosed in parentheses are compounds which do not occur more than 10 times in the material of this study. About half (in each table) of those so markt do occur from 1 to 10 times in this material.

Table B1 — and also B3, sillabic compounds — is arranged in fonetic order, like Table 12. Table B5 is arranged in reverse fonetic order, like Table 14.

Tables B2, B4, B6 present the same preceding, sillabic, and following consonant compounds and consonants, each in a classified arrangement which emfasizes the extent to which the whole group may be regarded as the product of a very few combining consonants acting as modifiers of the rest of the consonant alfabet. This striking and important fact may be summarized as follows:

Consonant compounds and consonants

Preceding   *Sillabic*   *Following*

$\left. \begin{matrix} s \\ o \end{matrix} \right\} \, ' \, o \left\{ \begin{matrix} l\text{-} \\ r\text{-} \\ w\text{-} \\ o\text{-} \end{matrix} \right.$ $' \, o \left\{ \begin{matrix} n \\ nd \\ nz \\ l \\ ld \\ lz \end{matrix} \right.$ $\left. \begin{matrix} \text{-}l \\ \text{-}r \\ \text{-}o \end{matrix} \right\} \, ' \, o \left\{ \begin{matrix} t \\ ts \\ d \\ dz \\ s \\ z \\ o \end{matrix} \right.$

57/57 = 100 %   50/51 = 98 %   135/181 = 75 %

In the above summaries, and in the tables following, the hyfen represents the place of the vowel of the sillable; the apostrofe represents the place of any consonant which may occur in such a combination; and the italic *o* represents the absence of any consonant at that point. Thus, substituting the consonant p for the apostrofe in the above summaries, they would denote the following consonant compounds and consonants occurring in the succeeding tables:

Preceding	(*also*)	*Sillabic*	(*also*)	*Following*		(*also*)		
spl-	sl-	pn	n	-lpt	-pt	-lt	-rt	-t
spr-	sw-	pnd	nd	-lps	-pts	-lts	-rts	-ts
sp-	s-	pnz	nz	-lp	-ps	-ld	-rd	-d
pl-	l-	pl	l	-rpt	-p	-ldz	-rdz	-dz
pr-	r-	pld	ld	-rpts		-ls	-rs	-s
p-	w-	plz	lz	-rps		-lz	-rz	-z
				-rp		-l	-r	

The summary figures express the fact that all 57 of the preceding, 50 of the 51 sillabic, and 135 of the 181 following compounds and consonants, may be reduced to the forms simbolized above. Note particularly that the preceding group involvs only 4, the sillabic group only 4, the following group only 6, and all 3 groups together only 8 different combining consonants, to produce 196/243 (excluding 46 single consonant occurrences) or over 80 % of all consonant compounds here reported.

TABLE B1 57 PRECEDING CONSONANT COMPOUNDS AND CONSONANTS. IN FONETIC ORDER, WITH KEY WORDS

				Summary	
pl-	place	spl-	split		
pr-	price	spr-	spring		
p-	part	sp-	speak	'	23
bl-	black	str-	street	'l-	5
br-	brought	st-	still	'r-	9
b-	be	(skl-	sclerosis)	'w-	6
tr-	true	skr-	scrape		
tw-	twelve	skw-	square	s'-	8
t-	to	sk-	school		
dr-	drive	(sf-	sphere)	s'l-	2
dw-	dwell	sm-	small	s'r-	3
d-	do	(sn-	snow)	s'w-	1
kl-	clear	sl-	slow	Total	57
kr-	crowd	sw-	sweet		
kw-	quite	s-	so		
k-	can	z-	zone		
gl-	glad	(ʃr-	shrewd)		
gr-	great	ʃ-	she		
(gw-	guano)	ʒ-	jardiniere		
g-	good	ç-	charge		
fl-	flour	j-	just		
fr-	from	m-	my		
f-	for	n-	not		
v-	very	l-	like		
ħr-	thru	r-	right		
(ħw-	thwart)	w-	was		
ħ-	thing	y-	you		
đ-	that	hw-	which		
		h-	he		
		57			

TABLE B2   57 PRECEDING CONSONANT COMPOUNDS AND CONSONANTS.   CLAST

	'l-	'r-	'w-	s'- s"-			'l-	'r-	'w-	s'- s"-		
p-				sp-		ʃ-		ʃr-				
	pl-			spl-								
		pr-		spr-		ʒ-						
b-						ç-						
	bl-					j-						
		br-				m-				sm-		
t-				st-		n-				sn-		
		tr-		str-		l-				sl-		
			tw-			r-						
d-						w-				sw-		
		dr-				y-						
			dw-			h-						
k-				sk-					hw-			
	kl-			skl-			23	5	9	6		
		kr-		skr-				43		14	Total	57
			kw-	skw-								
g-						Single		23				23
	gl-					Difthong		20		8		28
		gr-				Trifthong				6		6
			gw-								Total	57
f-				sf-								
	fl-											
		fr-										
v-												
h-												
		hr-										
			hw-									
ŋ-												
See s- colum } s-												
z-												

TABLE B3   51 SILLABIC CONSONANT COMPOUNDS AND
CONSONANTS.   IN FONETIC ORDER, WITH KEY WORDS

open	pn	even	vn	Summary		
(opened	pnd)	(evened	vnd)			
(opens	pnz)	(evens	vnz)	'n	6	
people	pl	(evil	vl)	'nd	5	
(peopled	pld)	(naveled	vld)	'nz	6	
peoples	plz	(evils	vlz)	n, nt, nd, nz	4	
cable	bl	(heathen	ðn)			21
(cabled	bld)	(heathens	ðnz)	'l	9	
cables	blz	reason	zn	'ld	9	
title	tl	(reasoned	znd)	'lz	9	
(titled	tld)	reasons	znz	l, ld, lz	3	
(titles	tlz)	(foozle	zl)			30
garden	dn	(foozled	zld)	*Total*		51
(gardened	dnd)	(foozles	zlz)			
(gardens	dnz)	happen	n			
handle	dl	doesn't	nt			
(handled	dld)	happened	nd			
(handles	dlz)	happens	nz			
broken	kn	battle	l			
(betokened	knd)	battled	ld			
(tokens	knz)	battles	lz			
article	kl		51			
(articled	kld)					
articles	klz					
single	gl					
(singled	gld)					
(singles	glz)					
(trifle	fl)					
(trifled	fld)					
(trifles	flz)					

TABLE B4   51 SILLABIC CONSONANT COMPOUNDS
AND CONSONANTS.   CLAST

'	'n	'nd	'nz	'l	'ld	'lz		
o		*nt						
o	n	nd	nz	l	ld	lz		
p	pn	pnd	pnz	pl	pld	plz		
b				bl	bld	blz		
t				tl	tld	tlz		
d	dn	dnd	dnz	dl	dld	dlz		
k	kn	knd	knz	kl	kld	klz		
g				gl	gld	glz		
f				fl	fld	flz		
v	vn	vnd	vnz	vl	vld	vlz		
ʃ	ʃn		ʃnz					
z	zn	znd	znz	zl	zld	zlz		
	7	7	7	10	10	10	Total	51
Single	1			1				2
Double	6	2	1	9	1	1		20
Triple		5	6		9	9		29
							Total	51

* Irregular

TABLE B5 182 FOLLOWING CONSONANT COMPOUNDS AND CONSONANTS. IN REVERSE FONETIC ORDER — RIMING DICTIONARY ORDER — WITH KEY WORDS

(grasp	-sp)	reached	-çt	milk	-lk
stamp	-mp	(burnt	-rnt)	work	-rk
help	-lp	sent	-nt	take	-k
(sharp	-rp)	built	-lt	(burg	-rg)
up	-p	part	-rt	big	-g
(bulb	-lb)	it	-t	(triumph	-mf)
(curb	-rb)	(bulbed	-lbd)	self	-lf
job	-b	(curbed	-rbd)	(scarf	-rf)
(grasped	-spt)	(rubbed	-bd)	if	-f
tempt	-mpt	(begged	-gd)	twelve	-lv
(helped	-lpt)	solved	-lvd	serve	-rv
(warped	-rpt)	(served	-rvd)	of	-v
kept	-pt	moved	-vd	(depth	-pħ)
asked	-skt	(breathed	-đd)	(eighth	-tħ)
(thanked	-ŋkt)	(adzed	-dzd)	(width	-dħ)
(milked	-lkt)	(cleansed	-nzd)	(fifth	-fħ)
(worked	-rkt)	used	-zd	(sixth	-ksħ)
fact	-kt	(rouged	-ʒd)	month	-nħ
(triumphed	-mft)	changed	-njd	strength	-ŋħ
(engulfed	-lft)	(bulged	-ljd)	health	-lħ
(dwarfed	-rft)	charged	-rjd	worth	-rħ
left	-ft	gaged ·	-jd	both	-ħ
(unearthed	-rħt)	(chasmed	-zmd)	with	-đ
(lathed	-ħt)	(filmed	-lmd)	(grasps	-sps)
(lapsed	-pst)	formed	-rmd	(stamps	-mps)
next	-kst	seemed	-md	(helps	-lps)
danced	-nst	turned	-rnd	(harps	-rps)
(whilst	-lst)	and	-nd	ships	-ps
first	-rst	(longed	-ŋd)	(tempts	-mpts)
must	-st	world	-rld	(excerpts	-rpts)
(welshed	-lʃt)	old	-ld	(scripts	-pts)
wished	-ʃt	hard	-rd	(instincts	-ŋkts)
(branched	-nçt)	had	-d	facts	-kts
(filched	-lçt)	ask	-sk	(gifts	-fts)
(searched	-rçt)	think	-ŋk	(texts	-ksts)

(bursts	-rsts)	words	-rdz	turn	-rn
lasts	-sts	needs	-dz	in	-n
cents	-nts	(burgs	-rgz)	long	-ŋ
(belts	-lts)	eggs	-gz	girl	-rl
parts	-rts	selves	-lvz	all	-l
its	-ts	(serves	-rvz)	for	-r
(asks	-sks)	gives	-vz		181
(thanks	-ŋks)	(bathes	-ɗz)		
(milks	-lks)	(prisms	-zmz)		
works	-rks	(films	-lmz)		Summary
books	-ks	terms	-rmz	-'	21
(nymphs	-mfs)	times	-mz	-'t, -'d	22
(gulfs	-lfs)	(turns	-rnz)	-''t, -''d	36
(dwarfs	-rfs)	lines	-nz		
(cuffs	-fs)	things	-ŋz	-'s, -'z	18
(depths	-pħs)	girls	-rlz	-''s, -''z	29
(eighths	-tħs)	miles	-lz		
(widths	-dħs)	years	-rz	-'ts, -'dz	10
(fifths	-fħs)	is	-z	-''ts, -''dz	6
(sixths	-ksħs)	(welsh	-lʃ)		
months	-nħs	(harsh	-rʃ)	Other -''	37
(lengths	-ŋħs)	fish	-ʃ		
(healths	-lħs)	rouge	-ʒ	-ksħ, ksħs	2
(births	-rħs)	trench	-nç	*Total*	181
(deaths	-ħs)	(filch	-lç)		
since	-ns	search	-rç		
else	-ls	such	-ç		
force	-rs	change	-nj		
this	-s	(bulge	-lj)		
(bulbs	-lbz)	large	-rj		
(verbs	-rbz)	judge	-j		
(jobs	-bz)	chasm	-zm		
hands	-ndz	(film	-lm)		
worlds	-rldz	form	-rm		
fields	-ldz	from	-m		

TABLE B6   182 FOLLOWING CONSONANT COMPOUNDS AND CONSONANTS.   CLAST

| | Group | | | | | $-\frac{t}{d}$ | $-\frac{s}{z}$ | $-\frac{ts}{dz}$ | $-\frac{st}{zd}$ | $-sts$ |
	I	2	m n ŋ	l	r					
-p						-pt	-ps	-pts	-pst	
		-sp				-spt	-sps			
			-mp			-mpt	-mps	-mpts		
				-lp		-lpt	-lps			
					-rp	-rpt	-rps	-rpts		
-b						-bd	-bz			
				-lb		-lbd	-lbz			
					-rb	-rbd	-rbz			
See colums { -t							-ts		-tst	
-d							-dz		-dzd	
-k						-kt	-ks	-kts	-kst	-ksts
		-sk				-skt	-sks			
			-ŋk			-ŋkt	-ŋks	-ŋkts		
				-lk		-lkt	-lks			
					-rk	-rkt	-rks			
-g						-gd	-gz			
					-rg		-rgz			
-f						-ft	-fs	-fts		
			-mf			-mft	-mfs			
				-lf		-lft	-lfs			
					-rf	-rft	-rfs			
-v						-vd	-vz			
				-lv		-lvd	-lvz			
					-rv	-rvd	-rvz			
-ħ						-ħt	-ħs			
		-pħ					-phs			
		-tħ					-ths			
		-dħ					-dhs			
		-fħ					-fhs			
		*-ksħ					*-kshs			
			-nħ				-nhs			
			-ŋħ				-ŋhs			
				-lħ			-lhs			
					-rħ	-rht	-rhs			
-ɽ						-ɽd	-ɽz			

* Irregular

	Group					$-\frac{t}{d}$	$-\frac{s}{z}$	$-\frac{ts}{dz}$	$-\frac{st}{zd}$	-sts
	1	2	3							
			mnŋ	l	r					
See colums {-s						-st		-sts		
-z						-zd				
-ʃ						-ʃt	.			
				-lʃ		-lʃt				
					-rʃ					
-ʒ						-ʒd				
-ç						-çt				
			-nç			-nçt				
				-lç		-lçt				
					-rç	-rçt				
-j						-jd				
			-nj			-njd				
				-lj		-ljd				
					-rj	-rjd				
-m						-md	-mz			
		-zm				-zmd	-zmz			
				-lm		-lmd	-lmz			
					-rm	-rmd	-rmz			
-n {						-nt	-ns	-nts	-nst	
						-nd	-nz	-ndz	-nzd	
					-rn {	-rnt				
						-rnd	-rnz			
-ŋ						-ŋd	-ŋz			
-l {						-lt	-ls	-lts	-lst	
						-ld	-lz	-ldz		
					-rl	-rld	-rlz	-rldz		
-r {						-rt	-rs	-rts	-rst	-rsts
						-rd	-rz	-rdz		
	21	4	4	7	10	13				

	Group	$-\frac{t}{d}$	$-\frac{s}{z}$	$-\frac{ts}{dz}$	$-\frac{st}{zd}$	-sts	
	59	51	48	14	7	2	Total 181
Single	21						21
Difthong	37	22	18				77
Trifthong	1	29	29	10	7		76
Quadrifthong			1	4		2	7
							Total 181

Appendix C

Expansion of Table 9

TABLE C 1370 COMMONEST SILLABLES, CLAST BY VOWELS, SHOWING INITIAL, MEDIAL, FINAL, AND WORD OCCURRENCES OF EACH

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
n										
n	343	76		.	46	19	297	57		
nt	119	17					119	17		
vn	98	4					98	4		
zn	59	15			13	8	46	7		
nd	44	22					44	22		
pn	41	5			9	3	32	2		
znz	32	4					32	4		
nz	20	10					20	10		
dn	16	4			2	2	14	2		
kn	15	3					15	3		
	787									
l										
bl	386	138			1	1	385	137		
l	264	45			19	9	245	36		
pl	218	12		.			218	12		
plz	34	8					34	8		
lz	30	4					30	4		
tl	28	7			16	3	12	4		
ld	28	18					28	18		
dl	20	8			1	1	19	7		
gl	20	7			1	1	19	6		
kl	17	9					17	9		
klz	15	8					15	8		
blz	13	8					13	8		
	1,073									
a										
and	3280	1							3280	1
ɾat	1346	2			1	1			1345	1

Sillable	Total Oc	Total It	Initial Oc	Initial It	Medial Oc	Medial It	Final Oc	Final It	Word Oc	Word It
az	783	2					1	1	782	1
a	686	215	673	204	13	11				
hav	658	3	41	2					617	1
at	612	13	19	5	5	4	3	3	585	1
an	462	29	131	27	1	1			330	1
had	414	2	3	1					411	1
haz	394	4	4	3					390	1
flar*	335	9	29	8					306	1
kan	291	24	97	19	7	4			187	1
man	218	27	57	21	4	4	1	1	156	1
flan	184	1							184	1
ad	177	60	156	52	9	6			12	2
af	154	10	152	8	2	2				
am	126	20	25	10	26	9			75	1
hwar*	125	14	12	8			30	5	83	1
ʃal	120	1							120	1
stand	100	12	30	5	14	5	19	1	43	1
ak	104	34	98	29	4	3	2	2		
mat	90	11	80	5	8	5	2	1		
kar	88	12	88	12						
bak	87	9	9	5	1	1	2	2	75	1
last	86	4	7	2	2	1			77	1
fak	80	16	35	7	45	9				
hap	69	12	61	10	8	2				
kap	66	12	64	11			2	1		
pas	65	16	33	11	11	3	1	1	20	1
haf	63	2					5	1	58	1
bat	58	10	56	9			2	1		
fakt	58	1							58	1
hand	57	7	9	5			2	1	46	1
val	53	10	53	10						
mand	53	9			23	7	30	2		
trans	51	18	51	18						
sat	50	9	32	7	4	1			14	1
past	47	3					1	1	46	2
prak	44	10	42	8	2	2				
gan	42	4			19	3	23	1		
ask	37	2	7	1					30	1
land	36	7	8	3			3	3	25	1
akt	36	8	8	2	8	3	5	2	15	1
askt	36	1							36	1
ab	34	18	30	17			4	1		

* For explanation of * marking, see pp. 46 and 126.

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
av	34	6	33	5					1	1
tab	33	10	7	5	26	5				
tak	32	7	5	3	8	2	18	1	1	1
taks	32	5	11	3			12	1	9	1
raɍ	32	1	32	1						
handz	32	1							32	1
par	30	9	9	4	14	4	7	1		
nas	30	9	20	6	2	2			8	1
naʃ	29	4	22	2	7	2				
aj	29	8	5	2	24	6				
trakt	28	8	5	2	6	4	17	2		
fam	28	4	28	4						
van	27	9	6	4	20	4			1	1
haps	26	1					26	1		
plan	25	2	3	1					22	1
pard*	25	6			2	1	23	5		
mar	25	6	25	6						
bad	24	3	8	1					16	2
flank	24	2	3	1					21	1
ap	24	12	24	12						
kant	23	3			1	1			22	2
ar*	23	1							23	1
al	23	16	9	8	14	8				
klas	22	6	8	5					14	1
war*	22	8	12	3			4	4 ·	6	.
glad	21	1							21	1
fan	21	7	12	6 .					0	1
naç	21	4 ·	21	4						
flats	21	1							21	1
sak	21	5	20	4					1	1
han	21	7	21	7						
as	21	12	14	8	7	4				
pat	20	5	20	5						
trav	20	12	17	10	3	2				
nan	20	8	7	4	13	4				
mag	20	9	20	9						
planz	19	1							19	1
par*	19	10	1	1	5	5	3	2	6	2
baŋk	19	7	7	4	2	2			10	1
kam	19	5	19	5						
pak	18	5	15	4					3	1
blak	18	6	5	5					13	1
bar	18	8	13	4	5	4				

Sillable	Total Oc	Total It	Initial Oc	Initial It	Medial Oc	Medial It	Final Oc	Final It	Word Oc	Word It
gram	18	5	1	1			15	3	2	1
farz*	18	3					18	3		
skwar*	18	3	2	1			8	1	8	1
vans	17	4			5	3	12	1		
an	17	11	16	10	1	1				
task	16	1							16	1
fast	16	5	3	2	1	1	1	1	11	1
lak	16	4	5	3					11	1
dam	15	5	6	3					9	2
gaɳ	15	5	9	4					6	1
gal	15	10	14	9	1	1				
rap	15	4	15	4						
trak	14	5	1	1	9	3			4	1
kat	14	7	12	6					2	1
çap	14	4	12	3					2	1
flat	13	5	6	4					7	1
fakts	13	1							13	1
vast	13	3	3	2					10	1
sam	13	4	13	4						
hab	13	4	10	2	3	2				
paç	12	3			4	1	8	2		
pan	12	11	6	5	5	5			1	1
ban	12	8	8	5	4	3				
klard*	12	1					12	1	11	1
staf	12	2					1	1	11	1
standz	12	2					4	1	8	1
ag	12	7	11	6	1	1	10	1		
trast	11	2			1	1	10	1		
graf	11	6			4	4	7	2		
ɳarz*	11	2							11	2
lat	11	1	11	1						
wag	11	2	11	2						
akts	11	1							11	1
	13,453									
a										
ar	642	30	100	29					542	1
part	123	11	11	4	28	4	5	2	79	1
par	107	26	88	22	17	3			2	1
larj	69	5	27	2	2	1	1	1	39	1
far	65	3	1	1			1	1	63	1
gard	47	10	1	1	15	4	26	4	5	1

Sillable	Total Oc	Total It	Initial Oc	Initial It	Medial Oc	Medial It	Final Oc	Final It	Word Oc	Word It
kar	43	15	24	12	2	2			17	1
çarj	39	5	12	3			4	1	23	1
farm	35	6	22	5					13	1
bard	31	5			29	3	2	2		
mar	31	11	31	11						
hard	31	7	10	6					21	1
fa	26	3	26	3						
hart	25	8	6	6	1	1			18	1
bar	23	13	13	9	4	3			6	1
start	22	3	13	2					9	1
arm	22	4	15	3					7	1
gar	19	6	15	5			4	1		
art	19	3	5	2					14	1
karz	18	1							18	1
mark	18	6	1	1	4	2	5	2	8	1
lar	18	1	18	1						
parts	17	1							17	1
marks	17	2					9	1	8	1
yardz	16	2					6	1	10	1
har	15	7	14	6	1	1				
çarjd	11	2					3	1	8	1
a	11	2			1	1			10	1
	1,560									
e										
ed	907	384	6	4	7	7	894	373		
en	675	121	581	95	35	21	59	5		
ez	529	202					529	202		
ment	402	86			5	5	389	80	8	1
men	382	46	138	10	44	19	36	16	164	1
ev	308	23	243	13	65	10				
eks	295	108	289	102	6	6				
nes	264	82	38	2	13	6	213	73		
flem	262	2	34	1					228	1
hwen	246	2	9	1					237	1
est	186	49			27	4	159	45		
self	166	11	12	3	3	1	134	6	17	1
les	166	54	14	5	13	9	86	39	53	1
ent	162	36			26	9	136	27		
sed	161	1							161	1
ver	146	2	146	2						
get	127	9	16	1	4	4	18	3	89	1

Sillable	Total Oc	It	Initial Oc	It	Medial Oc	It	Final Oc	It	Word Oc	It
wel	122	4	9	3					113	1
let	121	10	57	3			13	6	51	1
sent	120	13	2	1	19	3	32	7	67	2
ꝺen	115	1							115	1
jen	111	28	91	17	15	9	5	2		
nev	110	4	110	4						
e	110	19	64	13	46	6				
ens	106	27			19	7	87	20		
egz	104	30	101	29					3	1
tel	100	14	34	9	10	3	5	1	51	1
prez	99	8	99	8						
sen	99	37	79	27	20	10				
ek	99	29	82	24	17	5				
ments	97	42					97	42		
es	94	28	69	17	7	5	18	6		
ten	87	26	21	8	42	17			24	1
set	86	14	23	6	2	2	13	5	48	1
em	86	38	73	33	2	2	5	2	6	1
dent	82	18			15	4	67	14		
mem	80	11	46	6	34	5				
red	79	7	24	3	27	1.	1	1	27	2
genst	73	1					73	1		
lek	73	20	1	1	72	19				
fekt	70	12			23	6	47	6		
ses	69	12			37	9	32	3		
rek	69	31	44	22	21	8			4	1
yet	68	1							68	1
jekt	66	11			14	6	52	5		
sev	64	7	64	7						
el	63	32	16	8	18	14	29	10		
gen	62	1					62	1		
yes	57	3	34	2					23	1
sek	56	9	54	7	2	2				
hed	56	12	18	6	1	1	10	4	27	1
pen	55	27	13	10	38	16			4	1
selvz	55	3					55	3		
pres	53	18	10	4	18	11	12	2	13	1
best	52	1							52	1
tem	52	21	21	10	11	9	20	2		
sez	52	1							52	1
went	50	1							50	1
left	48	1							48	1
tend	46	17	2	2	26	9	16	5	2	1

Sillable	Total Oc	It	Initial Oc	It	Medial Oc	It	Final Oc	It	Word Oc	It
ker	46	8	23	7					23	I
kwes	45	5	44	4	I	I				
hev	45	7	45	7						
nekst	44	I							44	I
ej	44	8	II	4	I	I	29	2	3	I
sel	43	14	23	7	2	2	7	3	II	2
end	43	4					10	3	33	I
dens	42	14	2	I	I	I	39	12		
sept	41	6			10	4	31	2		
rekt	41	II			20	6	21	5		
send	40	6	5	I	6	3	I	I	28	I
bet	38	3	32	I			I	I	5	I
tent	38	15			6	4	27	10	5	I
ged	38	2			38	2				
rep	38	12	37	II	I	I				
ber	36	II	16	7	I	I			19	3
dren	36	2					36	2		
pekt	35	9			16	5	19	4		
spekt	35	8			27	6	8	2		
fel	35	5	19	3	2	I			14	I
spe∫	35	5	35	5						
sens	35	9	2	I	3	2	II	5	19	I
dem	34	12	21	7	13	5				
fer	34	9	7	3	13	4			14	2
rest	34	9	5	3	5	2	6	ɔ	18	I
jest	33	4			9	I	23	2	I	I
held	33	4					4	3	29	I
dred	32	8	9	5	I	I	22	2		
ves	32	8	19	3	13	5				
sep	32	17	15	5	17	12				
et	32	16			5	4	27	12		
twen	31	2	31	2						
ven	31	16	II	5	20	II				
hwen	31	I	31	I						
pre∫	30	7	17	2	13	5				
ter	30	10	27	7	2	2			I*	I
sents	30	I							30	I
ef	30	3	29	2	I	I				
lekt	29	II			14	6	15	5		
lent	29	8			I	I	27	6	I	I
help	29	3	4	2					25	I
dres	28	7	4	2	6	2	16	2	2	I

* Should be tər 1/1.

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
vest	28	8			19	5	8	2	1	1
vent	28	9			11	6	17	3		
zent	28	7			19	4	9	3		
çer	28	7	15	6					13	1
prest	27	7					21	6	6	1
fen	27	3			27	3				
vel	27	10	2	2	25	8				
sted	27	7	9	5			17	1	1	1
res	27	8	7	4	3	2	17	2		
elz	27	8					27	8		
fens	26	7	1	1	4	2	19	3	2	1
meh	26	2	26	2						
west	26	5	6	2			5	2	15	1
met	25	5	3	2	1	1	1	1	20	1
her	25	10	9	5	5	3			11	2
els	25	3	9	2					16	1
fend	24	6			19	5	5	1		
per	23	12	6	4	17	8				
tens	23	6			1	1	22	5		
kept	23	2					1	1	22	1
frend	23	4	5	2	1	1			17	1
kred	22	7	11	1	7	5	4	1		
ref	22	8	22	8						
des	21	11	19	9	2	2				
den	21	12	2	2	19	10				
ket	21	7	1	1	3	3	17	3		
freʃ	21	4			2	2	1	1	18	1
fek	21	9			21	9				
çek	21	2							21	2
jek	21	12			21	12				
lem	21	3	3	2			18	1		
pend	20	9	5	1	11	6	4	2		
test	20	8	3	2	5	3	2	2	10	1
spek	20	11	7	5	13	6				
streŋh	20	2	1	1					19	1
nent	20	6					20	6		
mes	20	7	10	4	7	2	·		3	1
rev	20	11	18	9	2	2				
reg	19	10	17	8	2	2				
tempt	18	5	2	1	7	2	9	2		
mend	18	9	1	1	13	6	4	2		
er	18	10	11	6			5	2	2	2
pleʒ	17	2	17	2						

Sillable	Total Oc	It	Initial Oc	It	Medial Oc	It	Final Oc	It	Word Oc	It
dek	17	9	16	8	1	1				
kwest	17	5			3	2	10	2	4	1
frendz	17	1							17	1
meʒ	17	4	17	4						
eħ	17	13					17	13		
te	16	8	5	2	11	6				
def	16	6	15	5	1	1				
gres	16	5			10	4	6	1		
felt	16	2					1	1	15	1
net	16	8	4	2	5	2	3	3	4	1
med	16	9	16	9						
ents	16	8					16	8		
ded	15	4	11	3					4	1
se	15	3	2	1	13	2				
ʃel	15	4	8	3					7	1
ʃelz	15	1							15	1
jes	15	8	4	2	11	6				
nek	15	4	1	1	11	2			3	1
ren	15	5	7	2	8	3				
weɲ	15	3	15	3						
bred	14	3	1	1					13	2
kwent	14	7			7	3	7	4		
fed	14	4	9	1	2	2			3	1
step	14	1							14	1
seʃ	14	6	6	1	8	5				
jekts	14	5					14	5		
twelv	13	1							13	1
tes	13	4	13	4						
dev	13	5	11	4	2	1				
dents	13	5					13	5		
gets	13	2					1	1	12	1
spes	13	5	13	5						
jent	13	8			2	2	11	6		
jents	13	3					13	3		
lej	13	6	11	4	1	1			1	1
pel	12	6			3	2	9	4		
trenç	12	2	7	1					5	1
dwel	12	7	7	6					5	1
spent	12	1							12	1
zen	12	3			12	3				
ʃens	12	3			1	1	11	2		
mens	12	2					12	2		
rez	12	7	12	7						

Sillable	Total Oc	It	Initial Oc	It	Medial Oc	It	Final Oc	It	Word Oc	It
rej	12	6	12	6						
hens	12	2	3	1					9	1
helh	12	4	4	2	1	1			7	1
ets	12	6					12	6		
peʃ	11	2			11	2				
bed	11	2	2	1					9	1
beg	11	2	1	1					10	1
tekt	11	4			4	2	7	2		
del	11	6	8	3	3	3				
gest	11	4					3	2	8	2
splen	11	3	11	3						
zes	11	5			6	4	5	1		
ʃer	11	4	3	3					8	1
nest	11	6			3	2	7	3	1	1
welh	11	3	1	1			4	1	6	1
ests	11	2					11	2		

12,076

ê

Sillable	Total Oc	It	Initial Oc	It	Medial Oc	It	Final Oc	It	Word Oc	It
ɹ̂ê	478	1							478	1
ê	464	72	88	21	163	49			213	2
ɹ̂êr	323	2							323	2
dê	266	25	19	6	15	11	131	7	101	1
wê	211	17	3	3	2	1	99	11	107	2
mê	210	14	17	6	33	7			160	1
sê	207	17	36	5	59	10	1	1	111	1
nê	200	41	123	13	75	27			2	1
grêt	181	6	47	5					134	1
mêd	179	5	2	1			4	2	173	2
têk	171	19	68	2	5	4	12	12	86	1
tê	160	41	18	4	142	37				
lê	154	45	70	15	58	27	17	2	9	1
mêk	141	6	35	4	1	1			105	1
pê	140	28	75	17	22	10			43	1
rê	99	39	17	7	81	31	1	1		
êt	97	49	6	3	50	33	18	12	23	1
kê	89	41	15	5	74	36				
stêt	89	6	53	5					36	1
kêm	82	2					11	1	71	1
plês	81	9	21	2	6	4	2	2	52	1
dêz	78	5					4	2	74	3
kês	71	2	19	1					52	1

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
lêt	70	30	22	3	23	18	13	8	12	1
sêm	67	1							67	1
mên	59	12	28	6	3	2	12	3	16	1
bê	54	18	46	13	3	3	2	1	3	1
trê	54	15	4	2	49	12	1	1		
vê	49	21	21	6	22	12	6	3		
sêv	49	3	16	2					33	1
nêm	48	3	8	2					40	1
plên	45	10	11	3	1	1	15	4	18	2
tên	43	16			16	8	27	8		
fês	42	4	11	2	1	1			30	1
zê	40	10			39	9	1	1		
rê	39	6	34	5					5	1
plê	38	10	17	7	3	2			18	1
stê	38	9	15	7					23	2
trên	37	3	18	2					19	1
gêv	36	1							36	1
fê	35	8	34	7	1	1				
rênj	35	6			11	3	4	2	20	1
wêt	35	6	10	2	1	1	1	1	23	2
kêt	33	18			27	14	6	4		
sêf	33	8	17	6			1	1	15	1
fêl	32	4	19	3					13	1
rêt	32	11	1	1	7	5	6	4	18	1
tênd	31	7					31	7		
gê	31	15	5	3	24	11			2	1
wêz	30	8					15	7	15	1
çênj	29	5	6	2	1	1	1	1	21	1
strêt	28	9	12	5	3	1	2	2	11	1
strênj	28	5	11	4					17	1
mêks	26	1							26	1
dên	24	6	21	4	3	2				
dêt	23	4	3	1			6	2	14	1
brêk	22	4	6	2					16	2
têl	21	6			11	2	7	2	3	2
fêḥ	21	5	13	3	1	1			7	1
vêl	21	5			16	2	4	2	1	1
sêl	21	7	8	3	1	1	3	1	9	2
nêt	21	16			15	10	6	6		
êj	21	2	2	1					19	1
têt	20	8			5	4	15	4		
êr	20	4	20	4						
plênz	19	6					17	5	2	1

Sillable	Total Oc	Total It	Initial Oc	Initial It	Medial Oc	Medial It	Final Oc	Final It	Word Oc	Word It
pên	19	4	3	1			12	2	4	1
pênt	19	6	18	5					1	1
êd	19	4	2	1			4	2	13	1
pêd	18	3 .					2	2	16	1
sêvd	17	1							17	1
mêt	16	7			5	4	11	3		
rêd	16	4	2	2			6	1	8	1
lêd	16	3	1	1			2	1	13	1
trêd	15	5	4	4					11	1
çênjd	15	3					3	2	12	1
wêst	15	5	6	3					9	2
plêst	14	3					2	2	12	1
têks	14	2					4	1	10	1
klêm	14	3			1	1	1	1	12	1
nêmz	14	· 1							14	1
pêj	13	2	· 5	1					8	1
trênz	13	1							13	1
grê	13	10	6	6	2	2			5	2
gêt	13	10	1	1	4	4	6	4	2	1
slêv	13	2	8	1					5	1
mêl	13	4	1	1			1	1	11	2
trêt	12	10			7	5	4	4	1	1
vêd	12	8			7	5	5	3		
ˌstêj	12	1							12	1
ʃêp	12	2	1	1					11	1
bês	11	4	5	2					6	2
gêjd	11	· 1					11	1		
gênd	11	1							11	1
frêd	11	1							11	1
hêt	11	2	2	1					9	1
rês	11	3	2	2					9	1
rêz	11	4	4	3					7	1
wêj	11	3	7	2					4	1

6,126

i

Sillable	Total Oc	Total It	Initial Oc	Initial It	Medial Oc	Medial It	Final Oc	Final It	Word Oc	Word It
in	3284	356	1087	329	14	11	66	14	2117	2
i	3217	819	281	77	1676	547	1260	195		
iŋ	2353	760			21	13	2332	747		
ri	1625	330	823	160	323	103	479	67		
it	1416	52	26	1	54	25	120	25	1216	1
iz	1286	22	11	1			62	20	1213	1

Sillable	Total Oc	It	Initial Oc	It	Medial Oc	It	Final Oc	It	Word Oc	It
li	1201	320			44	21	1157	299		
wiŧ	841	12	104	8	4	1	6	2	727	1
di	835	278	673	211	146	59	16	8		
ti	830	227	1	1	241	92	588	134		
bi	621	61	603	50	11	8	7	3		
ðis	572	1							572	1
hiz	517	1							517	1
wil	470	7	23	4	2	2			445	1
hwiç	454	1							454	1
bin	329	2							329	2
its	293	12					47	10	246	2
him	285	2	51	1					234	1
if	276	4			7	2	6	1	263	1
si	263	96	61	20	106	42	96	34		
dis	261	106	255	101	4	4	2	1		
tri	206	32	8	2	79	22	119	8		
ni	187	68	18	4	106	47	63	17		
is	181	43			130	35	51	8		
lit	152	14	120	6	27	4	4	3	1	1
im	141	70	134	65	6	4	1	1		
ij	141	50			29	15	112	35		
tiv	136	57			29	14	107	43		
did	134	5	23	1	2	1	9	2	100	1
pri	130	51	111	38	19	13				
mi	130	35	9	6	39	23	82	6		
hiŋ	129	4					85	3	44	1
mit	124	21	1	1	86	12	37	8		
tin	122	24			69	16	49	7	4	1
giv	121	6	59	2	2	2	3	1	57	1
mil	117	11	99	8	7	2			11	1
tiz	115	40	1	1			114	39	†	
biz	114	6	104	4			10	2		
til	108	18			29	11	60	6	19	1
sit	104	12	86	9			4	2	14	1
ik	101	50			4	3	97	47		
fiʃ	98	25	10	6	76	18			12	1
hiŋk	93	3	19	1	1	1			73	1
id	86	24	2	2	11	3	73	19		
iʃ	84	36	34	4	23	18	27	14		
min	83	20	42	10	37	9	4	1		
bil	82	25	25	4	42	20			15	1
hiŋz	82	1							82	1
diʃ	81	11	5	2	76	9				

† tiz 20/1 should be added here—see note on page 162.

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
ʃip	77	24	33	7			26	16	18	1
lik	76	7	2	2	1	1	72	3	1	1
liv	71	9	25	3	26	5			20	1
sis	70	20	30	11	15	4	25	5		
wiz	69	2	7	1			62	1		
tik	68	30	4	4	34	8	30	18		
siv	68	21	18	4	4	4	46	13		
mis	68	27	50	23	3	3			15	1
tis	65	22			23	16	22	5	20 †	1
sim	65	12	65	12						
dif	63	13	58	11	5	2				
fi	58	26	12	6	42	17	4	3		
stil	58	1							58	1
sid	58	13			57	12	1	1		
ziʃ	57	9			57	9				
big	55	4	4	2	1	1			50	1
vis	55	4	1	1	6	2	48	1		
bli	54	27					54	27		
iŋz	53	36					53	36		
sins	52	1							52	1
win	50	7	33	6					17	1
siks	49	3	12	2					37	1
wim	48	2	48	2						
ist	48	19			16	3	32	16		
bild	47	8	36	5	1	1	1	1	9	1
vi	44	16	7	4	29	10	8	2		
sti	44	15	1	1	43	14				
list	43	6	1	1	6	2	15	2	21	1
pi	42	20	10	5	32	15				
siç	41	2	41	2						
ji	40	18	1	1	27	11	12	6		
viʒ	39	7	4	1	35	6				
çil	39	3	38	2	1	1				
gin	38	3			28	2	10	1		
lim	35	11	23	4	12	7				
pik	34	4	30	3					4	1
vik	32	6	29	4	3	2	.			
pin	30	3			28	2			2	1
din	30	1	30	1						
nit	30	12	3	1	8	5	19	6		
niʃ	30	10			21	8	9	2		
lib	30	10	23	6	7	4				
wiʃ	30	3	2	2					28	1

† Should be tiz 20/1, on page 161.

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
izm	30	12					29	11	1	1
fig	29	3	29	3						
fif	28	2	28	2						
sig	28	12	24	10	4	2				
sin	28	15	21	10	4	3	3	2		
liŋ	28	18	1	1	2	2	25	15		
sil	28	9	9	4	8	2	11	3		
prit	27	4	27	4						
fit	27	10	7	3	1	1	12	5	7	1
ʃips	27	6					6	4	21	2
niŋ	27	4					27	4		
miʃ	27	9	2	2	25	7				
bilt	26	2					2	1	24	1
trik	26	3					25	2	1	1
spir	26	6	21	3	5	3				1
riz	26	6	1	1			25	5		
lij	26	8			20	6	6	2		
his	26	7	25	6	1	1				
il	25	8	6	2	2	1	10	4	7	1
pli	24	10	1	1	10	8	13	1		
triz	24	6					24	6		
briŋ	23	2	4	1					19	
tivz	23	11					23	11		
diz	22	10	16	7			6	3		
rit	22	6	14	1	1	1	6	3	1	1
ʃi	21	15			20	14	1	1		
jin	21	5	3	2			18	3		
mid	21	7	16	4			4	2	1	1
wit	21	9	17	6	2	2			2	1
ists	21	10					21	10		
prin	20	2	20	2						
bit	20	6	10	4			1	1	9	1
tij	20	4			1	1	19	3		
fin	20	8	14	4	6	4				
milk	20	2	1	1					19	1
sist	19	9			7	5	12	4		
siŋ	19	5	18	4					1	1
zi	19	14			14	10	5	4		
krit	19	8	18	7	1	1				
iʃt	19	10					19	10		
kwik	18	5	15	4					3	1
viz	18	8	16	6	2	2				
skrip	18	8			18	8				

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
miz	18	6	5	2			13	4		
lis	18	6	16	4	1	1	1	1		
trib	17	8	1	1	16	7				
vij	17	4	2	1	15	3				
vil	17	4	14	2	2	1	1	1		
çis	17	5			11	4	6	1		
rid	17	9	4	3	1	1	4	4	8	1
bliŋ	16	8					16	8		
biʃ	16	5			16	5				
tiʃ	16	8	2	1	14	7				
liʃ	16	8			11	6	5	2		
kwip	15	2			14	1	1	1		
kil	15	4	12	3					3	1
spriŋ	15	4	1	1			3	2	11	1
nif	15	6	1	1	14	5				
niz	15	7					15	7		
priz	14	4	14	4						
driŋk	14	3	7	2					7	1
ki	14	8			6	4	8	4		
fil	14	8	6	3	3	3	1	1	4	1
spi	14	5	5	3	9	2				
siz	14	9	1	1			13	8		
riŋ	14	3	2	2					12	1
hi	14	7	11	4	3	3				
iv	14	7					14	7		
dik	13	8	8	4	5	4				
kiŋ	13	2	5	1					8	1
givz	13	1							13	1
fiz	13	3	12	2			1	1		
vit	13	3	2	2			11	1		
ḏi	13	5			7	2	6	3		
sik	13	6	2	2			4	3	7	1
nid	13	3					13	3		
driv	12	1	12	1						
kwit	12	7	2	2	3	2	5	2	2	1
fild	12	2					1	1	11	1
strikt	12	5	9	2	2	2	1	1		
riç	12	4	2	2	3	1			7	1
rij	12	7	2	2	9	4			1	1
brij	11	3	1	1			1	1	9	1
tif	11	6			10	5	1	1		
ħi	11	4	3	2			8	2		
skil	11	2			1	1			10	1
livd	11	2					1	1	10	1
	28,388									

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
î										
bɪ	967	8	111	3	2	2	6	1	848	2
hɪ	696	4	14	3					682	1
wɪ	537	4	7	2	1	1			529	1
mɪ	306	13	14	7	35	5			257	1
pɪ	238	20	197	7	41	13				
sɪ	200	23	70	19	2	2			128	2
rɪ	193	51	186	46	2	2	1	1	4	2
ʃɪ	188	1							188	1
ɪ	186	19	173	12	11	5	2	2		
ðɪz	152	1							152	1
hɪr	147	11	15	8	2	2			130	1
yɪrz	93	1							93	1
hrɪ	75	1							75	1
pɪs	74	7	10	5					64	2
lɪv	71	8	6	2	3	3	44	2	18	1
dɪ	63	10	10	5	53	5				
mɪt	63	5	27	3					36	2
ɪç	63	1							63	1
nɪr	61	8	30	4	2	1	6	2	23	1
twɪn	60	1					60	1		
yɪr	60	2	1	1					59	1
dɪr	58	4	10	3					48	1
ɪz	56	10	39	4	2	2	13	2	2	2
stɪl	51	3	1	1	.				50	2
sɪd	51	17	1	1	29	10	19	5	2	1
frɪ	50	6	18	5					32	1
fɪl	48	2	16	1					32	1
sɪn	48	5	4	2			3	1	41	2
nɪd	48	5	16	4					32	1
kɪp	47	8	10	3	5	4			32	1
mɪnz	46	1							46	1
fɪt	44	5			8	2	7	1	29	2
rɪd	43	5	18	3	1	1			24	1
tɪ	42	9	1	1	15	5	4	2	22	1
wɪk	42	8	13	6					29	2
plɪt	41	6			11	4	30	2		
hwɪt	38	3	4	1			2	1	32	1
prɪ	36	18	27	12	8	5			1	1
klɪr	34	5	11	4					23	1
mɪn	34	6	10	4					24	2
spɪk	31	4	14	3					17	1
grɪ	30	10			15	7	15	3		

Sillable	Total Oc	Total It	Initial Oc	Initial It	Medial Oc	Medial It	Final Oc	Final It	Word Oc	Word It
sɪvd	30	4					30	4		
sɪmz	30	1							30	·1
mɪr	30	2	18	1					12	1
krɪs	28	5	1	1	15	2	12	2		
tɪn	27	9					27	9		
dɪl	27	5	17	4					10	1
ʃɪn	27	2			9	1	18	1		
lɪd	27	5	24	4					3	1
ɪv	27	5	25	3			1	1	1	1
ʃɪ	26	10	24	8	1	1			1	1
sɪmd	26	1							26	1
dɪd	25	2					24	1	1	1
rɪç	24	3	7	2					17	1
fɪld	23	3					3	2	20	1
nɪ	23	6	18	4			4	1	1	1
ɪt	23	4	15	3					8	1
lɪ	22	11	18	8	4	3				
lɪst	22	2					3	1	19	1
fɪr	21	5	2	1	2	1	4	2	13	1
strɪt	21	1							21	1
nɪdz	21	1							21	1
hɪ	20	9	18	8	2	1				
sɪm	20	2							20	2
çɪʃ	20	2	6	1					14	1
tɪç	19	5	10	4					9	1
dɪp	19	5	8	4					11	1
sɪt	19	3	2	1			8	1	9	1
sɪz	19	6	1	1			2	2	16	3
çɪp	19	4	11	3					8	1
klɪn	18	5	5	3			4	1	9	1
swɪt	18	5	7	4					11	1
plɪz	17	2	2	1					15	1
stɪk	17	2	8	1					9	1
sɪv	17	6			3	3	14	3		
lɪs	17	4			3	1	12	2	2	1
plɪzd	16	1							16	1
wɪks	16	2							16	2
krɪst	15	1					15	1		
pɪr	14	5			2	2	11	2	1	1
pɪrd	14	2					14	2		
trɪt	14	6	11	4			1	1	2	1
trɪm	14	2			6	1	8	1		
krɪt	14	4			1	1	13	3		

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
spɪç	13	2	5	1					8	1
rɪçt	13	1							13	1
rɪn	13	3					13	3		
rɪr	13	3	1	1			6	1	6	1
ɪst	13	4	8	2			1	1	4	1
bɪt	12	4	8	2					4	2
trɪ	12	3	3	2					9	1
krɪm	12	1							12	1
spɪd	12	5	5	4					7	1
krɪ	11	6	8	5			3	1		
grɪz	11	2					11	2		
fɪldz	11	2					1	1	10	1
sɪs	11	5	1	1	1	1	2	2	7	1
lɪf	11	3	1	1			10	2		
lɪvz	11	2					8	1	3	1
ɪrz	11	2					2	1	9	1
	6,507									

ə

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
əv	4001	3					3	2	3998	1
wəz	850	2	11	1					839	1
ən	816	18	39	11	3	3	131	3	643	1
nət	596	4	5	2	2	1			589	1
kən	556	224	533	206	23	18				
frəm	433	1							433	1
hwət	277	4	17	2			7	1	253	1
kəm	225	89	203	78	22	11				
pəs	194	11	138	6	56	5				
kə	166	51	163	49	3	2				
ə	155	37	144	30	11	7				
əf	96	13	93	12	3	1				
əb	95	32	95	32						
əp	88	20	73	16	15	4				
fər	80	19	55	17	25	2				
bəd	67	10	41	5	26	5				
ət	67	4			9	3	58	1		
prəp	66	8	57	6	9	2				
fəl	61	5	61	5						
gət	55	2			5	1			50	1
prəb	45	6	44	5	1	1				
spən	45	8	1	1	44	7				
məd	38	11	36	9	2	2				

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
əl	35	9	28	2	7	7				
bəm	34	6	31	5	3	1				
mər	33	13	16	7	17	6				
nəl	32	5	25	2	7	3				
prəf	30	9	29	8	1	1				
dəl	30	3	30	3						
hər	28	3			28	3				
nəm	28	13	9	4	19	9				
pəl	27	10	24	7	3	3				
kəst	26	3	5	2					21	1
kər	26	6	25	5	1	1				
prəd	24	3	24	3						
klək	23	2					21	1	2	1
prəm	22	6	22	6						
pə	22	8	22	8						
dək	22	7	22	7						
kəp	21	4	21	4						
prəs	20	10	19	9	1	1				
kəl	20	9	18	7	2	2				
nən	20	6	4	3			3	2	13	1
yənd	19	1					19	1		
pəp	18	8	17	7	1	1				
bəndz	18	2	1	1					17	1
lət	18	6	1	1	6	3	2	1	9	1
wəç	18	2	10	1					8	1
kwəl	17	5	13	2	4	3				
həs	16	4	16	4						
əg	16	5	1	1	15	4				
prəg	15	1	15	1						
tər	15	10	8	5	4	3	3	2		
vəl	15	6	14	5	1	1				
vəlvd	15	3					15	3		
prəks	14	4	1	1	13	3				
kwən	13	2	13	2						
mən	13	8	11	6	2	2				
jəb	13	1	13	1						
jər	13	2			13	2				
kəŋ	12	4	12	4						
mək	12	3	2	2	10	1				
ək	12	6	9	4	1	1	2	1		
təl	11	7	5	4	6	3				
kəsts	11	1	11	1						
	9,919									

Sillable	Total Oc	Total It	Initial Oc	Initial It	Medial Oc	Medial It	Final Oc	Final It	Word Oc	Word It
ə̄										
fə̄r	1136	23	96	19	3	2	2	1	1035	1
ə̄l	679	15	210	12	1	1	2	1	466	1
ə̄r	602	28	139	22	5	5			458	1
wə̄r	221	3	7	2					214	1
lə̄ŋ	147	12	14	4	3	3	36	4	94	1
kə̄z	145	4	15	2			98	1	32	1
ə̄f	72	4	2	2			27	1	43	1
wə̄nt	71	3	27	2					44	1
hə̄t	68	2	1	1					67	1
ə̄	61	22	56	18	4	3			1	1
wə̄	55	8	54	7	1	1				
smə̄l	54	3	8	2					46	1
kə̄l	47	6	6	3	1	1	2	1	38	1
lə̄	47	8	13	7					34	1
nə̄r	46	3	12	1	6	1			28	1
mə̄rn	46	2	46	2						
sə̄	43	3	1	1			1	1	41	1
fə̄rm	38	10			4	3	16	6	18	1
lə̄s	35	2	15	1					20	1
pə̄r	34	3			34	3				
kə̄r	34	13	27	9	7	4				
kə̄ld	34	2					2	1	32	1
brə̄t	33	1							33	1
rə̄ŋ	32	1							32	1
hə̄rs	31	4	19	3					12	1
kə̄rd	28	7			27	6			1	1
fə̄l	28	6	12	2	1	1	4	2	11	1
lə̄st	28	1							28	1
krə̄s	25	5	3	2			15	2	7	1
kwə̄r	24	3	14	2	10	1				
tə̄k	23	2	3	1					20	1
strə̄ŋ	23	5	9	4					14	1
sə̄rt	21	2	1	1					20	1
ʃə̄rt	21	5	12	4					9	1
gə̄n	20	1							20	1
fə̄rmd	20	5					14	4	6	1
drə̄	18	7	8	4	7	2			3	1
wə̄rd	18	7	1	1	3	3	5	2	9	1
nə̄rh	16	4	5	3					11	1
lə̄z	16	1							16	1
ə̄t	16	1							16	1
brə̄d	14	2					11	1	3	1

Sillable	Total Oc	It	Initial Oc	It	Medial Oc	It	Final Oc	It	Word Oc	It
drên	14	2					1	1	13	1
kêrn	14	3	3	2					11	1
tôt	12	1							12	1
wênts	12	1							12	1
bôt	11	1							11	1
bêrn	11	2					1	1	10	1
kêt	11	1							11	1
môr	11	6	5	4	6	2				
wêrm	11	5	4	2	1	1	1	1	5	1
	4,277									
ν										
but	517	9	9	5	1	1	2	1	505	2
un	466	164	453	155	13	9				
wun	412	8	27	5			2	1	383	2
up	333	2	129	1					204	1
wur*	328	12	20	8	3	3			305	1
us	282	74			35	19	124	54	123	1
sum	277	19	108	12			6	5	163	2
kum	270	26	72	9	32	12	43	4	123	1
uñ	258	4	200	3	58	1				
hur*	233	4	11	3					222	1
pur*	194	33	184	28	10	5				
sur*	178	37	167	27	9	8	1	1	1	1
must	165	1							165	1
suç	132	1							132	1
furst*	131	1							131	1
wurk*	124	13	34	8			7	4	83	1
su	120	27	116	23	4	4				
sub	120	36	111	34	9	4				
kun	113	6	113	6						
muç	1Q7	2					3	1	104	1
wurld*	106	2	3	1					103	1
just	100	10	3	1	6	5	5	3	86	1
pub	83	9	79	7	4	2				
fur*	81	23	65	14	7	4	8	4	1	1
guv	78	9	78	9						
duz	69	4	16	3					53	1
nuh	61	1	61	1						
mun	60	1	50	1						
wuns	59	1							59	1

* For explanation of * marking, see pp. 46 and 126.

Sillable	Total Oc	It	Initial Oc	It	Medial Oc	It	Final Oc	It	Word Oc	It
num	58	7	53	4	3	1	2	2		
tur*	57	32	7	7	48	23	2	2		
gun	56	4	6	2			6	1	14	1
ur*	53	11	51	9	1	1			1	1
frunt	51	5			3	2	2	2	46	1
kuv	49	17	20	8	29	9				
dus	48	7			41	5	7	2		
struk	48	11	1	1	39	9			8	1
turn*	47	8	7	2	5	3	18	2	17	1
suk	47	10	45	9					2	1
mun	46	1					46	1		
kur*	45	20	27	9	13	9	5	2		
nuf	44	1					44	1		
luv	43	5	11	4					32	1
yun	43	3	2	2					41	1
turnd*	41	3					11	2	30	1
dun	40	1							40	1
kul	40	13	17	7	23	6				
trub	37	6	37	6						
hur*	37	8	37	8						
zult	37	3			9	2	28	1		
jus	37	12	31	7	4	3	2	2		
mus	36	12	12	7	2	1	22	4		
munhs	35	2							35	2
vur*	34	17	11	7	23	10				
kumz	32	3					9	2	23	1
gurl*	32	1							32	1
trust	31	9	8	4	2	2	4	2	17	1
mud	31	6	30	5	1	1				
run	31	4	12	2			1	1	18	1
hurd*	31	5	2	2			4	1	25	2
mur*	30	14	18	10	10	3	2	1		
munh	28	2	4	1					24	1
kus	27	11	17	6	3	3	7	2		
ʃus	27	16			8	5	19	11		
hun	26	4	26	4						
buv	25	1					25	1		
um	25	15	4	2			20	12	1	1
sun	24	7	10	5					14	2
kut	23	4	5	3					18	1
gunz	23	1							23	1
sug	23	6	23	6						
juj	23	4	14	3					9	1

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
wurh*	23	2	I	I					22	I
duk	22	12			21	11			I	I
hurd*	22	I							22	I
ut	22	7	21	6			I	I		
ukts	21	I					21	I		
tuç	20	4	7	3					13	I
zurv*	20	7			6	3	14	4		
strukt	19	7			16	5	3	2		
sus	19	10	18	9			I	I		
wurd*	19	I							19	I
gurlz*	18	I							18	I
furm*	18	7	2	2	I	I	5	3	10	I
wurdz*	18	I							18	I
turmz*	17	I							17	I
dus	17	I							17	I
nun	17	I							17	I
tunz	16	I							16	I
fun	16	5	12	4					4	I
suf	16	3	16	3						
lurnd*	16	2					I	I	15	I
ul	16	7	14	5	2	2				
dukt	15	3			5	2	10	I		
jur*	15	5	15	5						
lurn*	15	2	2	I					13	I
surv*	14	3	I	I			2	I	11	I
surç*	14	7	10	4	I	I	I	I	2	I
surn*	14	2			8	I	6	I		
mul	14	7	12	5	2	2				
bruf	13	3	13	3						
wurks*	13	2					I	I	12	I
urh*	13	2	2	I					11	I
purts*	12	I					12	I		
blud	12	4	5	3					7	I
burn*	12	3	5	I	2	I			5	I
kup	12	3	8	2					4	I
vurt*	12	9			9	6	3	3		
sump	12	3	I	I	11	2				
rub	12	3	10	2					2	I
bur*	11	7	10	6					I	I
tus	11	4					11	4		
fund	11	I							11	I
vurs*	11	5	4	I	I	I	5	2	I	I
strug	11	3	11	3						

Sillable	Total Oc	It	Initial Oc	It	Medial Oc	It	Final Oc	It	Word Oc	It
stur*	11	5	9	4					2	1
ruʃ	11	4	1	1	1	1	1	1	8	1
wurs*	11	1							11	1
wurldz*	11	2							11	2
	7,773									
ə										
ə	3167	341	859	138	376	188	24	14	1908	1
ər	2084	431			631	193	1453	238		
ʃən	923	277			33	20	890	257		
tər	575	116			243	54	332	62		
əl	570	127			168	47	402	80		
ən	386	113			101	36	285	77		
ərz	379	158					379	158		
dər	290	50			85	32	205	18		
vər	251	47	1	1	71	40	179	6		
pər	235	57	115	30	33	21	27	5	60	1
ʃənz	212	90					212	90		
bər	142	23			23	9	119	14		
ərn	132	18			76	8	56	10		
mə	129	36	96	22	29	10	4	4		
kəl	127	44			28	12	99	32		
mən	126	28			7	3	119	25		
ərd	124	30			3	3	121	27		
təl	119	26			17	10	102	16		
tərz	105	48					105	48		
ənz	104	25					104	25		
dʒər	97	6			1	1	96	5		
rə	75	20	31	4	42	15	2	1		
lər	73	17			12	4	61	13		
pə	72	20	10	4	62	16				
yən	67	12			4	2	63	10		
tə	63	33			58	28	5	5		
nəl	63	21			18	6	45	15		
pəs	61	3			16	1	45	2		
ʃəl	56	19			9	5	47	14		
bərz	53	8					53	8		
sər	52	14	4	2	11	6	37	6		
ək	49	5	28	1	20	3	1	1		
wərd	47	16			2	2	45	14		
əns	41	22			3	3	38	19		
tənt	40	8					40	8		

Sil:able	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	I+	Oc	It
sən	40	7			22	4	18	3		
yənz	38	6					38	6		
təns	36	7					36	7		
kə	36	20	22	8	14	12				
jərz	36	5					36	5		
əlz	36	ʔ1					36	11		
çən	35	7			2	2	33	5		
əd	35	3					35	3		
dərz	33	9					33	9		
gər	33	11			3	2	29	8	1	1
jər	30	10			8	5	22	5		
tərd	29	13					29	13		
mər	29	8			12	2	17	6		
dərd	27	11					27	11		
gən	27	6			26	5	1	1		
sərz	27	5					27	5		
zənd	27	1					27	1		
nə	27	18			27	18				
nər	27	9			11	5	16	4		
ənd	26	2					26	2		
rəl	25	8			9	3	16	5		
ət	25	7			14	1	11	6		
də	24	11			16	7	8	4		
dəm	24	4					24	4		
fə	24	10	18	7	6	3				
ʒən	24	10			2	2	22	8		
fər	23	8			19	5	4	3		
nəns	22	6			2	2	20	4		
stəns	21	3			6	1	15	2		
yər	21	5			3	1	18	4		
ənt	21	14			4	4	17	10		
ərt	21	1					21	1		
trəl	20	2					20	2		
kwəl	20	2			10	1	10	1		
məl	20	6			1	1	19	5		
stənt	18	4			9	2	9	2		
əz	18	2					18	2		
çənz	17	2					17	2		
bərd	16	5					16	5		
fərt	16	4			5	2	11	2		
vəl	16	5			1	1	15	4		
sə	16	11	11	7	5	4				
jən	15	2					15	2.		

Sillable	Total Oc	It	Initial Oc	It	Medial Oc	It	Final Oc	It	Word Oc	It
lə	15	10	3	3	9	5	3	2		
əpt	15	4					15	4		
trə	14	8	2	2	3	3	9	3		
təm	14	·4			10	3	4	1		
gəl	14	4			1	1	13	3		
sənz	14	2					14	2		
pərz	13	3					13	3		
tən	13	5			6	2	7	3		
zəndz	13	.1					13	1		
bən	12	1					12	1		
və	12	8	4	2	8	6				
hər	11	1	11	1						
	12,350									

o

Sillable	Total Oc	It	Initial Oc	It	Medial Oc	It	Final Oc	It	Word Oc	It
o	707	186	328	50	247	114	73	19	59	3
no	478	24	42	14	11	6	2	2	423	2
so	446	35	37	15	104	18			305	2
on	276	6	200	4			1	1	75	1
for	228	24	34	18	1	1	157	3	36	2
pro	226	84	210	75	12	8			4	1
mor	221	4	7	1			2	2	212	1
to	179	46	46	7	125	35	8	4		
go	179	12	61	2	5	5	40	4	73	1
most	155	7	2	1			48	5	105	1
po	153	39	100	15	52	23	1	1		
mo	116	39	75	18	40	20	1	1		
floz	104	1							104	1
old	84	4	9	3					75	1
port	77	17	3	3	25	9	46	4	3	1
hom	69	6	6	5					63	1
dont	67	1							67	1
hol	61	8	10	3			1	1	50	4
flo	60	4					19	2	41	2
lo	60	21	28	14	3	2	13	4	16	1
fors	59	9	1	1	31	6	4	1	23	1
sol	58	8	52	7					6	1
hold	51	13	14	3	5	3	10	6	22	1
lon	50	4	4	2			21	1	25	1
ʃo	48	6	16	4					32	2
por	47	17	17	8	24	7			6	2
kors	46	4	2	2			7	1	37	1

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
boh	45	1							45	1
non	45	2					12	1	33	1
ro	44	20	7	7	21	9	15	3	1	1
ko	42	27	29	16	8	7	5	4		
hop	41	6	11	5					30	1
rod	37	5	1	1	1	1	9	1	26	2
poz	35	11			4	4	30	6	1	1
told	34	2					1	1	33	1
kol	34	2					1	1	33	1
noz	32	2							32	2
tro	30	10	1	1	29	9				
ports	29	4					26	3	3	1
pozd	28	7					28	7		
not	28	4	4	3					24	1
do	27	12	12	7	2	2	13	3		
forst	27	3					18	2	9	1
trol	25	5			7	3	18	2		
vot	25	6	5	2	11	2	1	1	8	1
forh	24	5	5	2			3	1	16	2
oz	24	9					24	9		
stor	23	5	9	2	2	1	2	1	10	1
rodz	21	2					11	1	10	1
kort	20	1							20	1
bord	19	5	1	1			2	2	16	2
od	19	4					19	4		
klos	19	3	6	2					13	1
klozd	19	3					14	2	5	1
kold	18	2	1	1					17	1
roz	18	3					8	2	10	1
post	17	8	14	7					3	1
bro	17	5	15	3	2	2				
wont	17	1							17	1
gro	15	7	11	6					4	1
gron	15	4	1	1			1	1	13	2
gold	15	2	3	1					12	1
sold	15	1							15	1
zors	15	2			9	1	6	1		
bor	13	3	2	2					11	1
goz	13	3					2	2	11	1
hro	13	3	3	1			2	1	8	1
kloz	12	6	5	2	4	2	1	1	2	1
glo	12	5	11	4					1	1
spok	12	2	5	1					7	1

Sillable	Total Oc	It	Initial Oc	It	Medial Oc	It	Final Oc	It	Word Oc	It
ʃton	12	2					1	1	11	1
ʃon	12	1							12	1
ʃol	12	2	12	2						
fo	11	9	10	8					1	1
fon	11	3					9	2	2	1
vo	11	5	2	2	8	2	1	1		
ho	11	5	10	4					1	1
	5,418									
u										
tu	139	8	139	8						
wud	281	7	24	5					257	2
yu	268	115	17	10	227	101	24	4		
ful	224	66	15	5	71	22	103	38	35	1
çur	161	37			19	8	142	29		
kud	147	2	14	1					133	1
u	127	30			109	27	17	2	1	1
ʃud	119	2	1	1					118	1
gud	108	2	2	1					106	1
put	73	3	3	1			7	1	63	1
wu	57	2	56	1	1	1				
luk	56	5	25	3			1	1	30	1
ur	52	9			7	4	45	5		
çu	47	18			45	17	2	1		
tuk	40	1							40	1
yur	37	4	13	2			24	2		
buks	34	1							34	1
stud	28	4					12	3	16	1
çurz	26	9					26	9		
ʒu	23	4			23	4				
fut	19	7	3	3	1	1	2	2	13	1
çurd	19	5					19	5		
yurz	19	2					19	2		
buk	18	4	5	1			2	2	11	1
hud	18	8					18	8		
gudz	17	1							17	1
flu	16	5			16	5				
lukt	16	2					3	1	13	1
yut	16	7			11	4	5	3		
stru	11	3			11	3				
ud	11	2					11	2		
	2,393									

Sillable	Total Oc	It	Initial Oc	It	Medial Oc	It	Final Oc	It	Word Oc	It
ū										
tū	3318	10			2	1	189	6	3127	3
yû	862	23	52	18	9	3	26	1	775	1
hū	252	3	4	2					248	1
dū	239	2	36	1					203	1
yûr	230	2							230	2
ħru	96	3	14	1					82	2
yûrz	56	1							56	1
yûz	54	6	19	4			3	1	32	1
fūd	53	1							53	1
ʃûr	53	11	12	2	14	6	6	2	21	1
sūn	48	2	6	1					42	1
yûs	48	7	17	4			3	2	28	1
yûzd	45	1							45	1
hūz	42	1							42	1
mūv	38	8	19	4	4	2	4	1	11	1
nūn	37	3					32	2	5	1
trū	30	1							30	1
hūm	28	1							28	1
trūps	26	1							26	1
skūl	25	3	2	2					23	1
pūr	24	2	1	1					23	1
rūm	24	4	1	1			2	2	21	1
klūd	23	7			15	4	8	3		
prūv	21	9	1	1	12	6	3	1	5	1
trūh	21	1							21	1
stūpt	19	1							19	1
mūvd	18	2					4	1	14	1
jū	16	6	15	5	1	1				
klū	14	7			14	7				
rūl	13	3	7	2					6	1
yūn	13	3	12	2	1	1				
tûr	12	8	9	6			1	1	2	1
prūvd	11	3					7	2	4	1
blū	11	1							11	1
lūz	11	3	3	2					8	1
wūnd	11	3	9	2					2	1
	5,676									
au										
aur	378	4	21	2					357	2
aut	332	29	43	25			85	3	204	1

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
naı	210	1							210	1
baıt	153	1					153	1		
ħaı	152	5	23	2			5	2	124	1
daın	99	4	3	2			1	1	95	1
paı	77	8	76	7	1	1				
haıs	70	11	12	6			5	4	53	1
faınd	64	6	1	1	4	2	4	2	55	1
kaın	52	13	50	11	2	2				
maınt	43	7	1	1	2	2	37	3	3	1
ħaı	40	2	40	2						
raınd	39	5	1	1	2	1	22	2	14	1
kaınt	37	9	5	3	3	3	∠5	2	4	1
aırz	34	3							34	3
paındz	26	1							26	1
daıt	26	5	3	2	5	2			18	1
graınd	25	3					2	2	23	1
flaır	25	1							25	1
paınd	24	3	1	1	1	1			22	1
haız	23	4	15	3	8	1				
naıns	22	6			19	4	3	2		
saıħ	21	3	5	2					16	1
naınst	20	3					20	3		
taın	19	2	1	1					18	1
kraıd	15	3	6	2					9	1
saınd	11	4	5	3					6	1
laıd	11	4	3	2			6	1	2	1
	2,048									
ə̇										
pə̇nt	51	9	6	1	10	5	3	2	32	1
bə̇z	29	2							29	2
lə̇	25	6	13	3	12	3				
plə̇	22	7			17	6	5	1		
ə̇l	20	2	1	1					19	1
və̇s	19	4	4	1	2	1	1	1	12	1
bə̇	15	3	1	1			1	1	13	1
strə̇	15	4			6	3	9	1		
jə̇	14	3			3	1	3	1	8	1
çə̇s	11	2	1	1					10	1
	221									

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
á										
á	1259	26	84	22	1	1	1	1	1173	2
bá	644	11	10	5			7	4	627	2
má	341	6	45	5					296	1
tám	222	10	2	1			15	8	205	1
rát	143	12	27	7	2	2	2	1	112	2
lák	133	10	12	4	1	1	7	4	113	1
sád	105	21	2	2	15	6	45	12	43	1
há	100	13	53	11					47	2
láf	91	2	2	1					89	1
mát	85	6	7	4			1	1	77	1
hwál	80	2					2	1	78	1
nát	64	7	2	1	1	1	14	3	47	2
fát	62	3	41	2					21	1
lát	61	17	17	5	9	4	17	7	18	1
áz	61	17			7	5	21	11	33	1
fánd	60	6	5	1			3	3	52	2
kánd	53	4	18	2			4	1	31	1
lán	53	2			1	1			52	1
hwá	51	1							51	1
fáv	49	1							49	1
sá	48	27	29	15	18	11	1	1		
mánd	48	5	2	1	6	2			40	2
fá	45	17	30	6	5	5	10	6		
trá	45	11	27	8	4	2			14	1
prás	43	3	13	2					30	1
támz	42	3					15	2	27	1
plá	39	8			6	3	33	5		
lá	39	20	20	10	11	6	3	3	5	1
dráv	37	4	13	3					24	1
fád	37	18			2	2	35	16		
ázd	37	18					37	18		
kwár	35	6			23	4	12	2		
tár	34	7	1	1	17	3	15	2	1	1
vád	34	6	13	1	3	2	17	2	1	1
sát	32	11	1	1	7	4	5	4	19	2
çáld	32	4	7	2			1	1	24	1
prá	30	9	26	6	4	3				
rá	30	16	21	12	6	2			3	2
ám	30	1							30	1
kwát	28	2			1	1			27	1
vá	28	11	26	9	2	2				
málz	28	1							28	1

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
lánz	27	1							27	1
sáz	26	8	1	1	4	3	8	3	13	1
láz	26	5					17	3	8	1
wáz	26	6	3	1			10	4	13	1
fán	25	8	2	2	3	2	3	3	17	1
strák	25	2	11	1					14	1
tá	24	9	13	6	9	1	1	1	1	1
hánd	24	1					24	1		
plád	23	4					23	4		
kwárd	23	3					23	3		
fár	23	4	8	3					15	1
zár	23	5			10	4	13	1		
dá	22	16	17	14	1	1			4	1
ál	22	2							22	2
pláz	20	4					20	4		
áv	20	1							20	1
vás	17	5			2	2	7	2	8	1
sádz	17	3					17	3		
hwát	17	2	1	1					16	1
nán	16	4	7	3					9	1
mán	16	3	8	2					8	1
táz	15	10			9	6	5	3	1	1
flá	15	4	8	3					7	1
fás	15	2			2	1	13	1		
rávd	15	2					15	2		
práz	14	3			3	1	11	2		
táp	14	3	2	2					12	1
krá	14	4	9	3					5	1
rád	14	4	6	3					8	1
ráz	14	8	3	1	3	3	5	3	3	1
wád	14	3	3	2					11	1
wár	14	4	6	3					8	1
ád	14	2							14	2
váz	13	10			8	7	5	3		
mál	13	2	1	1					12	1
frát	12	5	12	5						
spát	12	2					4	1	8	1
wáf	12	2					1	1	11	1
tárd	11	2					2	1	9	1
dád	11	2							11	2
ráts	11	2							11	2
wáld	11	1							11	1
	5,258									

Sillable	Total		Initial		Medial		Final		Word	
	Oc	It	Oc	It	Oc	It	Oc	It	Oc	It
iu										
nu̇	182	17	29	8	4	3	41	4	128	2
fu̇	100	11	4	9	2	1			54	1
mu̇	55	19	24	8	31	11				
du̇	51	12	29	7	4	3	3	1	15	1
bu̇	49	10	30	4	19	6				
du̇r	47	4	41	1	3	2	3	1		
du̇s	39	13			14	8	24	4	1	1
hu̇	35	10	31	7	3	2			1	1
ku̇	34	18	6	3	26	14			2	1
vu̇	34	4	1	1			4	2	29	1
su̇	34	24	27	18	4	4	2	1	1	1
nu̇z	33	7	10	2			5	4	18	1
lu̇	31	18	6	5	25	13				
tu̇	28	11	1	1	27	10				
ku̇r	28	7			13	4	14	2	1	1
du̇st	27	5					27	5		
tu̇d	24	5					24	5		
su̇t	21	4	7	2			2	1	12	1
su̇m	20	5			14	3	6	2		
lu̇t	20	7			6	3	13	3	1	1
tu̇t	19	8			8	4	11	4		
pu̇r	17	3	6	2					11	1
tu̇n	17	2			16	1			1	1
gu̇	17	10	1	1	14	7	2	2		
tu̇r	11	5			5	3	6	2		
	973									

Appendix D

Letter frequencies

Table D1 givs the relativ frequency of the letters of English, arranged in alfabetic order. The column heded *Occurrences* givs the total number of times each letter occurd, while the column heded *Items* givs the number of different places in which each occurd. Below the totals, the occurrences of the apostrofe and hifen in these 100,000 words ar similarly shown. Only 7 difthongal or diacritic letters occurd in the entire 100,000 words ; namely æ 2, ô 2, ö 2, and ı 1.

Table D2 givs the same data arranged in order of frequency, plus an analisis showing the number of occurrences of each letter initially, medially, or finally in words, or as a word by itself.

Comparing Table D2 with the data on page 133 it appears that :

3 letters make up over 25% of the total letters.
6   ,,   50%   ,,
11   ,,   75%   ,,

Comparison with the data of Table 17, showing a total of 365,419 occurrences for the same 100,000 words, shows an excess of 19 87% cf letters over sounds. In other words, as compared with a simple one sign one sound fonetic spelling, 1 letter in 6 of our present conventional spelling is quite superfluous, involving a direct waste, in the mere cost of such superfluous writing and printing alone, of over $600,000,000 annually in the United States alone.

Addendum—1950. The foregoing estimate of $600,000,000 annual waste was based on printing [and writing] costs and quantities as of the 1920 United States census. On the basis of the 1950 census figures, not yet available, this annual waste will, beyond question, largely exceed $1,000,000,000 a year.

TABLE D1   RELATIV FREQUENCY OF LETTERS IN ENGLISH
ARRANGED IN ALFABETIC ORDER

Letter	%	Occurrences	Items
a	7.88	34,536	5,352
b	1.56	6,838	1,207
c	2.68	11,747	3,148
d	3.89	17,046	3,394
e	12.68	55,465	9,493
f	2.56	11,199	1,164
g	1.87	8,191	2,079
h	5.73	25,138	1,634
i	7.07	30,955	6,058
j	0.10	421	117
k	0.60	2,610	526
l	3.94	17,261	3,668
m	2.44	10,678	1,916
n	7.06	30,902	5,480
o	7.76	33,993	4,305
p	1.86	8,162	2,154
q	0.09	403	122
r	5.94	26,051	5,569
s	6.31	27,642	6,069
t	9.78	42,815	5,366
u	2.80	12,285	2,448
v	1.02	4,481	907
w	2.14	9,396	712
x	0.16	687	214
y	2.02	8,837	1,189
z	0.06	284	131
Totals	100.00	438,023	74,422
		674	159
		28	9

TABLE D2   RELATIV FREQUENCY OF LETTERS IN ENGLISH, ARRANGED IN ORDER OF FREQUENCY, WITH ANALISIS OF POSITION OF OCCURRENCE IN WORDS

Letter	%	Occurrences	Items	Initial	Medial	Final	Word	Letter
e	12.68	55,465	9,493	2,123	32,472	20,870		e
	9.78	42,815	5,366	17,182	15,210	10,423		t
a	7.88	34,536	5,352	9,477	22,791	148	2,120	a
o	7.76	33,993	4,305	7,764	21,608	4,617	4	o
i	7.07	30,955	6,058	6,691	23,094	15	1,155	i
	7.06	30,902	5,480	2,317	20,521	8,064		n
	6.31	27,642	6,069	6,119	9,508	12,015		s
	5.94	26,051	5,569	2,165	17,734	6,152		r
	5.73	25,138	1,634	4,916	17,772	2,450		h
	3.94	17,261	3,668	2,118	12,155	2,988		l
	3.89	17,046	3,394	2,756	4,227	10,063		d
u	2.80	12,285	2,448	1,214	10,278	793		u
	2.68	11,747	3,148	4,327	7,170	250		c
	2.56	11,199	1,164	4,037	2,550	4,612		f
	2.44	10,678	1,916	4,010	5,198	1,470		m
	2.14	9,396	712	6,839	1,604	953		w
	2.02	8,837	1,189	1,454	971	6,412		y
	1.87	8,191	2,079	1,588	3,588	3,015		g
	1.86	8,162	2,154	3,476	4,213	473		p
	1.56	6,838	1,207	4,788	2,006	44		b
	1.02	4,481	907	537	3,944			v
	0.60	2,610	526	436	1,373	801		k
	0.16	687	214		626	61		x
	0.10	421	117	256	165			j
	0.09	403	122	171	232			q
	0.06	284	131	15	265	4		z
Totals	100.00	438,023	74,422	96,776	241,275	96,693	3,279	
		674	159	17	644	13		
		28	9		25	3		

Addenda and errata

Number Page

(1)   5   Two other word counts, publisht since the first edition of this study, deserv special mention :

Horn, Ernest, *A basic writing vocabulary,* University of Iowa Monographs in Education, First series, No. 4, Iowa City, 1926.

This list, subtitld " 10,000 words most commonly used in writing," altho subject to several serious criticisms which substantially limit its usefulness, is nevertheless the best single list of its type yet publisht, and the one to which I hav chiefly turnd for a substantially longer word count list than afforded by my own investigation. Its two most serious deficiencies ar : failure to make an actual count of 372 of the commonest words, together making up a presumptiv 60% of all running words investigated, which ar estimated on the basis of an earlier and much smaller study which lumpt together the data from several still smaller and diversely pland and executed investigations ; and failure to report actual unweighted frequencies—each publisht figure having been multiplied by an unstated factor from 1 to 5, dependent on the number of different categories of counted material in which the word occurd. In consequence, available data indicate that the 9 commonest words (which make up over 25% of my own study) ar under-estimated by about 50% ; and none of the publisht data can be used as a basis for determining the frequency of occurrence of sillables or sounds.

Horn, Ernest, and Peterson, Thelma, *The basic vocabulary of business letters,* Gregg, 1943.

This list deals with 1,436,000 running words of business correspondence which wer a part of the 5,137,000 running words which formd the basis of the Horn list reviewd above. It suffers from the same defect of failing to count 372 of the commonest words, and underestimating the commonest of these as much as 50% ; but in other respects is a very valuable source of data for the limited field investigated. The alfabetic list givs *all* words found in the material, not merely the most frequent, with both weighted and unweighted frequencies ; and is supplemented by a list of over 5,000 most-used words (out of a little less than 15,000 different words) in order of frequency.